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TEXAS STATE JOURNAL OF MEDICINE

Volume 49 Number 4 Austin, Texas, April, 1953

CONTENTS

	Page
PRESIDENT'S PAGE ..... Preceding	205
EDITORIALS	
Dr. George Turner	205
Association History Ready for Sale	206
The Men (and Women) Behind the Annual Session	206
Research to Fight Cancer	208
World Health	208
ORIGINAL ARTICLES	
Treatment of Oral Cavity Cancers; Present Status of Radiotherapy — *Gilbert H. Fletcher*	209
Carcinoma of the Esophagus; Surgical Treatment — *William D. Seybold*	214
Multiple Primary Cancer of the Bowel, the Bladder, and the Skin — *Charles Phillips*	219
Carcinoma of the Cecum; Acute Appendicitis as the Presenting Symptom — *John F. Thomas*	222
Diagnosis of Spinal Cord Tumor — *S. R. Snodgrass*	227
Lactating Adenoma of Breast — *A. J. Gill, Jerry A. Stirman, and C. E. Gordon*	231
Malignant Neoplasia of Normally Situated and Heterotopic Lymphoid Tissue and Its Numerical Microscopic Grading — *A. C. Broders, Sr.*	234
Studies on the Inheritance of Hemophilia by Laboratory Tests — *Joseph M. Hill, Gwendolyn Crass, John Ellis, and K. P. Wittstruck*	241
CASE REPORTS	Page
Malignant Melanoma; A Case Series — *Dudley Jackson, Jr., and David A. Todd*	246
NEWS	
Coming Meetings and Clinics	249
Meetings on Cancer May 15, 16	251
Dr. Wall President of Obstetricians	252
Tri-State College of Surgeons' Meeting	253
Texas Surgical Society	253
American Physical Therapy Association	253
Obstetrics and Gynecology Course	254
Southwest Allergy Forum	254
LIBRARY SECTION	
Library Reference Service	254
Books Received in March	254
Motion Pictures for Loan	255
Book Notices	256
ORGANIZATION SECTION	
American Medical Association	
U. S. Department of Health, Education, and Welfare Approved	261
Texas Medical Association	
AAPS Contest Winners Announced	261
Thanks from Hotels Committee	261
County Societies	261
District Societies	264
AUXILIARY SECTION	
County Auxiliaries	264
District Auxiliaries	266
DEATHS	266

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President's Page

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Through sweeping reorganization of the Federal Security Agency, the Eisenhower administration is presently establishing a cabinet Department of Health, Education, and Welfare.

In supporting the President's Reorganization Plan No. 1, American medicine to the casual observer may appear to be inconsistent. The Truman plan to place Oscar Ewing in the cabinet went down on two occasions to defeat before strong medical opposition.

AMA's position resulted from the recent extraordinary session of its House of Delegates, meeting in Washington to discuss with administration leaders the ramifications of the plan. Significance of the meeting and depth of the AMA decision may be gauged by understanding that this is only the fourth time in our 106 years' history that such extraordinary session has been convened. It is the first time that a president of the United States has asked to address the AMA.

Operationally, the plan would replace the old bureaucrat-ridden, Ewing-headed Federal Security Agency with a cabinet-rank department to oversee the Office of Education, Social Security Administration, and such health and medical activities as the Public Health Service, Food and Drug Administration, and Office of Vocational Rehabilitation.

Cabinet secretary of the department would be Mrs. Oveta Culp Hobby of Houston, and Texans may well be proud of her choice for the post.

The plan also would create a special assistant to the secretary—*responsible directly to the secretary*—who would be the top staff policy adviser on health and medical matters and who would represent the secretary in important external relationships of the department with national and international bodies concerned with health and medicine. The special assistant as needed would coordinate related health and medical programs within the department. This special assistant, to

quote the president, would be chosen from among the acknowledged leaders in the medical field with no prior governmental experience.

The reorganization plan itself, to quote Senator Robert A. Taft, gives the administration a chance to "clean out the entrenched bureaucrats" who have long fought American medicine.

It was on sober analysis of these two factors that the AMA House of Delegates decided to support the plan as "a step in the right direction."

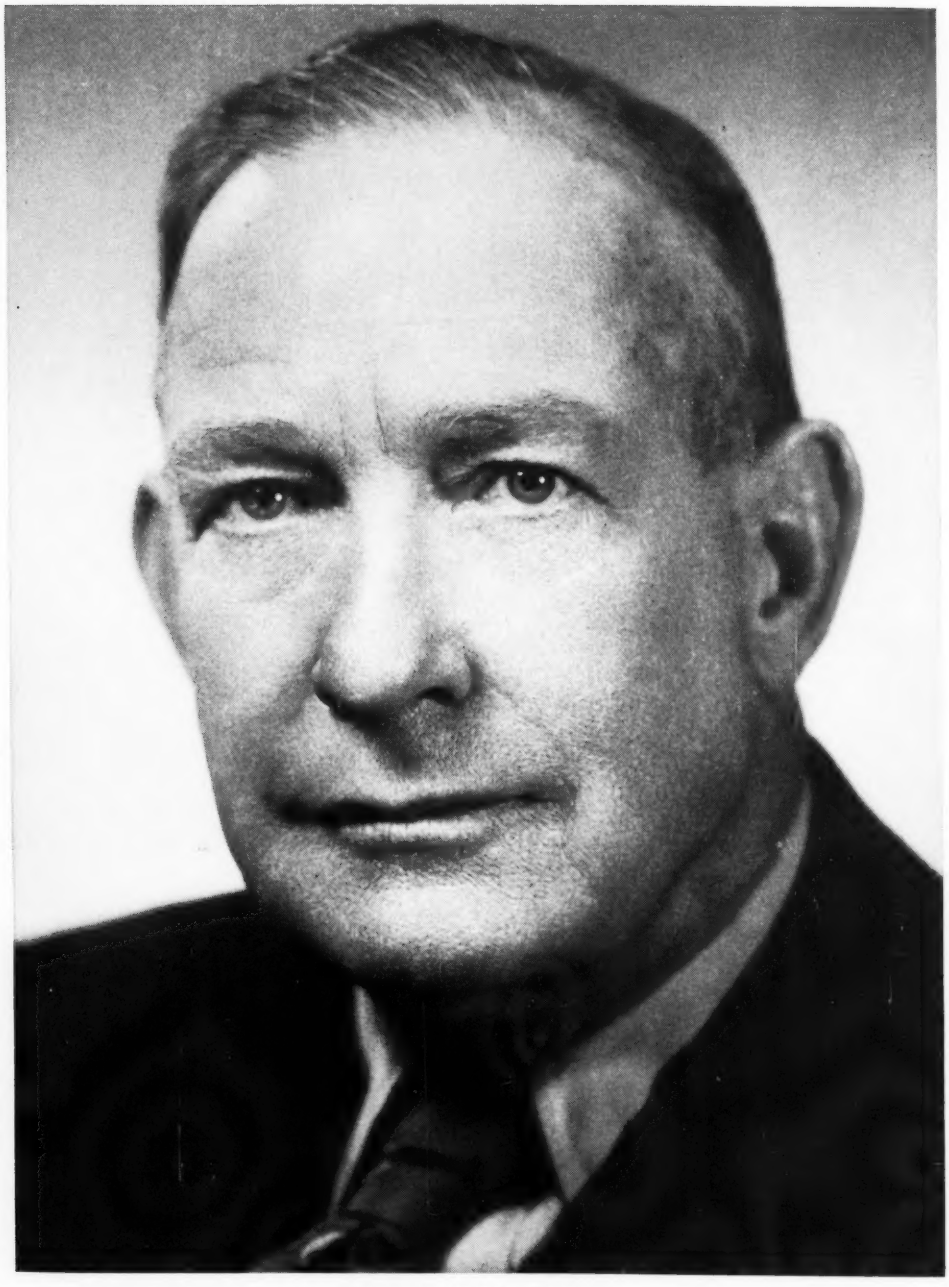
Many of us are fully conscious that a plan of this nature is as workable as the men and women who head the organization it creates. It was that fact that led us to add a sort of savings clause to our agreement. We reserve the right to take a long second look at the operation of the plan should its management ever go astray on health and medical matters.

The provision of a special assistant to the secretary is a step in the right direction which should result in centralized coordination of health and medical activities under a nationally-acknowledged medical leader. Properly administered, it will permit more effective administration of the health activities of the new department without interference or control by other branches.

We must finally assess the two key factors in our decision: First, and probably foremost, the men who have been the staunchest friends of American medicine urged that we give the plan a try. Second, the United States Congress is still the vital issue, through its enacted policies, in the formulation of relations between government and the profession of medicine. The creation of no department can alter that fact.

As a result, our conclusion can be only what it was in Washington: American medicine must cooperate in every way to make the plan successful. At the same time, American medicine must be vigilant lest the plan provide a springboard to abuse of power. If that happens, we must be forthright and vigorous in opposition. If, after a sufficient period for development, the plan does not result in proper advancement in and protection of health and medical science and in their freedom from political control, we must reserve the right to press for what we may believe to be a better route.

T. C. Terrell



GEORGE TURNER, M. D.

Eighty-Eighth President, Texas Medical Association

El Paso, Texas

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DR. GEORGE TURNER

Dr. George Turner of El Paso becomes the eighty-eighth President of the Texas Medical Association at a significant time in the history of the organization—the one hundredth anniversary year of the founding of the Association. He will be installed in Houston on April 29.

The presidency of the Texas Medical Association will climax a series of positions in which Dr. Turner has served the medical profession in Texas in past years including the presidency of the El Paso County Medical Society, presidency of the First District Medical Society, chairmanship and secretaryship of the Section on Clinical Pathology of the Association, councilorship of the First District, and Presidency-Elect of the Association.

Born September 6, 1893, in Iredell to Edward R. and Susan (Woodley) Turner, Dr. Turner received his preliminary education in Iredell and Hico and attended Southwest Texas Normal College, San Marcos, and the University of Texas. He studied at the Medical Department of Texas Christian University, Fort Worth, from which he received his medical degree in 1918, the year in which the Medical Department was merged with Baylor University College of Medicine.

Dr. Turner served an internship at All Saints Hospital, Fort Worth, and took postgraduate training at Yale Army Laboratory School, New Haven, Conn., and the Chicago Post Graduate School, Chicago. During World War I he served as a captain in the Army Medical Corps after being graduated with the first class at Leon Springs Training Camp and was a major in the medical reserves for fifteen years.

Dr. Turner has engaged in the practice of radiology in El Paso since 1920. He is a diplomate of the American Board of Radiology and a fellow of the American College of Radiology. Other medical organizations of which he is a member are the American Medical Association, the Rocky Mountain Radiological Society, the Radiological Society of North America, the Texas Radiological Society, the Texas Society of Pathologists, and the American Society of Clinical Pathologists. In October, 1952, Gov-

ernor Shivers appointed Dr. Turner to serve on the State Board of Health.

Dr. Turner's civic activities in El Paso have included his participation in the Chamber of Commerce and the school board, which he served as president. Dr. Turner is a Master Mason, and a member of the Scottish Rite and Shrine, the Methodist Church, and the El Paso Country Club. Dr. Turner formerly had interests in oil operations and prides himself on the raising of 15-17 cotton on his 951 acres of irrigated land. He has written numerous articles on radiologic and pathologic subjects, a number of which have appeared in the Texas JOURNAL.

On June 22, 1918, Dr. Turner married Miss Nina Johnson of Austin. They have two daughters, Mrs. Robert Hollingsworth, Jr. of Edna and Mrs. Roger C. Buddington of Van Horn. Mrs. Turner, like her husband, has long been associated with the activities of the medical profession through her membership and participation in the Woman's Auxiliary to the Texas Medical Association, of which she was president in 1946-1947. She is at present first vice-president of the Woman's Auxiliary to the American Medical Association. Together the Turners have given staunch support to the betterment of medicine in Texas. Under the leadership of Dr. Turner, the Association will continue to progress during the remainder of the centennial year and the months thereafter.

ASSOCIATION HISTORY READY FOR SALE

A review of Dr. P. I. Nixon's history of the Texas Medical Association appears in the Library Section of this JOURNAL. The volume, authorized by the Board of Trustees for publication in observance of the centennial of the Association, has been produced on a speeded up schedule by the University of Texas Press so as to be ready for the annual session in Houston. Copies of the book will be on display there.

The history will be on sale at Association headquarters regularly at $6 per copy, but up to April 29, mail orders accompanied by check or orders placed at the annual session in Houston will be accepted from members of the Association or Auxiliary on the basis of $5 per copy.

The review, written by Dr. Allen T. Stewart, a past president of the Association with intimate knowledge of its recent history, suggests that the Nixon book is well worth a place in the library of every Texas family which has or has had a physician in it. For those who expect to obtain a copy, the special prepublication rate is an attractive offer.

THE MEN (AND WOMEN) BEHIND THE ANNUAL SESSION

Within a few days after this JOURNAL reaches the members of the Texas Medical Association, they will be en route to Houston to attend the centennial anniversary session of the Association, scheduled for April 26-29 at the Shamrock Hotel.

Details of the program, designed to emphasize the contributions which Texas physicians have made to medical progress in the past century, appeared in the March JOURNAL. The distinguished list of guests and visiting speakers, the abstracts of papers to be presented, the enumeration of technical and scientific exhibits, the announcements of special entertainments and observances, and the agenda of the House of Delegates, together with mention of the specialty meetings which have become a welcome adjunct to the Association's session, are available for individual study and personal scheduling.

Most members of the Texas Medical Association probably do not realize the endless detail, the advance planning, the checking and rechecking, the mountains of correspondence, the miles of travel, the countless telephone

calls which are necessary the year-round to assure a complete and fairly smooth-running convention of the dimensions of the Texas Medical Association annual session. Those who shoulder the responsibility of this work do not realize its magnitude until they have completed their assignment.

It may be inappropriate to congratulate someone on a job well done until the results are evident, but it seems fitting to call attention now to those who have labored on the 1953 annual session so that during the meeting in Houston, members who are finding the activities stimulating and enjoyable may extend a personal word of thanks to the persons responsible for their pleasure.

Dr. May Owen of Fort Worth, chairman of the Council on Scientific Work, and the other members of the Council, Drs. L. Bonham Jones, San Antonio; Kleberg Eckhardt, Corpus Christi; George W. Waldron, Houston; and A. C. Scott, Jr., Temple, together with the ex-officio members, Dr. T. C. Terrell, Fort Worth, President, and N. C. Forrester, Austin, Executive Secretary, throughout the year, have directed plans for the session and have bound into a unified whole the threads of the various events, participants, and physical facilities.

The officers of the scientific sections have been diligent in their efforts to provide unusually rewarding papers in every specialty of medical practice. They include Drs. Ben H. Bayer, Houston; Sheldon M. Tucker, Houston; George M. Jones, Dallas; Richard E. Nitschke, San Antonio; M. C. Overton, Jr., Pampa; O. W. English, Lubbock; Robert G. Swearingen, Corpus Christi; Ernest E. Anthony, Jr., Fort Worth; Edward D. McKay, Amarillo; Hal W. Maxwell, Dallas; C. H. Frank, Texarkana; Royal Wertz, Amarillo; Carl A. Nau, Galveston; Maurice A. Roe, Dallas; H. B. Williford, Beaumont; A. J. Gill, Dallas; J. M. Woodall, Big Spring; and John A. Welty, Harlingen. Dr. James D. Murphy, Fort Worth, chairman of the Committee on Scientific Exhibits, and his colleagues also have done much toward developing a scientific presentation worthy of the name.

Dr. Edward T. Smith, Houston, has spent considerable time and energy in directing the efforts of the Committee on General Arrangements, the other members of which are Drs. S. G. Ohlausen, E. Trowbridge Wolf, W. Frank Renfrow, and W. Thomas Arnold, and of the more than a score of local committeemen who have acted as agents for the Association in dealing with nonphysician Houstonites. The local committee which has had the most difficulty, perhaps, is that on Hotels, composed of Drs. J. T. Billups, chairman; C. A. Dwyer, C. Marshall Ashmore, Mavis P. Kelsey, and Kenton R. Phelps. The block of hotel rooms originally expected for use by visitors at the medical convention was reduced in size by the requirements of another convention and the Hotel Committee has spent many hours attempting to obtain enough suitable accommodations.

Mrs. Robert F. Thompson of El Paso, President of the Woman's Auxiliary, and Mrs. J. Peyton Barnes of Houston, convention chairman for the Auxiliary; Drs. L. H. Reeves of Fort Worth and M. D. Levy of Houston, state and local chairman, respectively for the Memorial Services; the officers of the many groups not officially a part of the Association but with important roles in the overall annual session; the many persons who have agreed to take part on the program—all these deserve a vote of thanks for cooperating in the annual session endeavor.

It is impossible to name every helpful person, whether a member of the Association or Auxiliary, an employee on the central office staff, or someone unrelated to the medical profession who this year has given specialized assistance. Nevertheless, as the last week of this month unfolds and the 1953 annual session becomes first the present and then the past, those mentioned heretofore and many others as well can

breathe more easily and privately congratulate themselves for their contribution to this centennial celebration.

RESEARCH TO FIGHT CANCER

A campaign for $18,000,000 to fight cancer through research, education, and service to patients is being waged this month by the American Cancer Society. Of this sum, probably more will be devoted to research than was allocated last year—$4,100,000. At present 900 investigators in approximately 100 universities, laboratories, and hospitals are being supported in their research by the Cancer Society.

That research can bring appreciable results in saved lives and dollars is evident from such facts as these: The death rate from rheumatic fever declined 53 per cent and from pneumonia and influenza 47 per cent between 1944 and 1950. Deaths from appendicitis dropped 53.7 per cent from 1944 to 1949. The overall death rate in the United States was reduced 14 per cent from 1937 to 1950—a saving of 1,763,347 lives. It represented an annual saving of two and one-half billion dollars in additional income earned by those who otherwise would be dead. These savings were not entirely due to research, of course, but laborious investigation which resulted in the sulfonamides, penicillin, and other antibiotics can be credited with a major part of the success.

While research goes on in the field of cancer—much of it with the help of American Cancer Society funds contributed by the people of the United States through local and state organizations — physicians must be ever alert for early signs of this treacherous disease. Early diagnosis plus prompt and vigorous treatment surgically or radiologically was responsible for saving about 70,000 Americans from death from cancer in 1952. This is a record which doctor and patient alike may hope to break in 1953.

WORLD HEALTH

World Health Day, April 7, probably passed without much fanfare in Texas communities, yet what it stands for is making a tremendous difference throughout the world.

Sponsored by the World Health Organization, which was founded September 1, 1948, and now has a membership of eighty-two countries, World Health Day is a time to take stock of the toll which disease is taking everywhere—in wealthy and well-developed countries as in poorer and underdeveloped countries. For example, even in the United States it is estimated that on a given day 6,750,000 persons are so disabled by illness or physical or emotional handicap that they cannot work. The picture is much worse for two-thirds of the people of the world, whose annual income averages $50 each and whose life expectancy is only 30 years.

By coordinating and advising, the World Health Organization is in a position to improve health programs around the globe. Its six regional offices supervise activities in those areas, but central technical services (epidemiologic and health statistics, therapeutic substances, and editorial and reference service) and advisory services (communicable diseases, public health organization, education and training, and environmental sanitation) are maintained for use by all regions.

New international sanitary regulations, a worldwide epidemic warning service, emergency teams of workers and drugs for use in epidemics, and demonstrations of control techniques to fight malaria (which causes 3,000,000 deaths annually) are some of the projects which WHO has furthered in its effort to reach the objective "the attainment by all peoples of the highest possible level of health."

The world is too small, its problems too universal for World Health Day to go unnoticed. There is much to be done for better health at home, but appropriate international projects to raise the level of health everywhere also deserve interest, understanding, and support.

ORIGINAL ARTICLES

TREATMENT OF ORAL CAVITY CANCERS
Present Status of Radiotherapy

GILBERT H. FLETCHER, M.D., Houston, Texas

THE improvements in both surgical and radiotherapeutic techniques, combined with the experience accumulated in the last thirty years in the use of surgery, irradiation, or a combination of both, have brought changes in the indications for both modes of treatment in oral cavity cancers and their metastasis to the neck. From 1910 until 1925 radiotherapy was used primarily for hopeless cases or cases in which surgery would entail a high operative mortality. Later on, as the techniques of irradiation improved, earlier lesions were treated. Through the 1930's, irradiation therapy was considered the treatment of choice for squamous cell carcinoma from the lips to the tonsils. It was used either as a curative procedure or, in cases which were known to be incurable, for palliation.

The progress in anesthesia and in the physiology of head and neck surgical procedures have made possible extensive operations with practically no operative mortality. Even in advanced diseases the primary results are satisfactory despite poor cosmetic results and partial functional crippling. Developments in the use of radium and roentgen rays have made radiotherapy safer and more efficient. Extensive work in radio physics has put the clinical use of radiotherapy on a sound physical basis.

The concept of palliation by means of irradiation also has been revised. Extensive surgery now is often done, and justifiably so, as a palliative procedure to remove a painful and disfiguring tumor. Conversely, irradiation therapy given palliatively is often of little help and sometimes is more harmful than helpful.

The experience acquired in the last thirty years is now large enough to help decide what is worth while treating, what complications are to be expected, and, therefore, what is the treatment of choice. I will review briefly the indications of radiotherapy and, in my opinion, the most suitable techniques of irradiation. No general statement can be made as to the respective indications for surgery or irradiation therapy in the treatment of lesions from lips to tonsils as they vary from site to site.

INDICATIONS AND TECHNIQUE

Lip.—Large series of lip carcinomas treated either surgically or radiotherapeutically (tables 1 and 2) are available. If the lesions are equally well treated by either technique, the salvage rate is similar. In early lesions which can be treated easily by simple wedge-shaped excision, irradiation and surgery are equally simple. For larger lesions, adequate irradiation is probably the treatment of choice, as otherwise rather extensive surgery and plastic repair are necessary. As to the irradiation technique itself, either radium implantation or external irradiation can be used satisfactorily, depending upon the experience of the radiotherapist in either or both. The tumor doses are now well established. Interstitial implantation, 6,000 to

TABLE 1.—*Results in a Series of 208 Cancers of the Lip Treated with Irradiation or Surgery.*

Classification of 208 Cancers of the Lip According to Stages									
Stage	Total Cases	Well 5 Yr.		Dead Free of Disease		Dead with Cancer*		Lost†	
		No.	%	No.	%	No.	%	No.	%
1	174	138	88	16	10.7	2	1.3	23	11
2	23	15	71	5	24	1	5	2	1
3	2	1	50	0	0	1	50	0	0
4	9	3	33.3	2	22.2	4	44.4	0	0
Total	208	157	83.2	23	12.5	8	4.3	25	12

Methods of Treatment and Results								
Therapy	Followed Cases		Free of Disease 5 Yr.		Dead with Disease		Dead Without Disease	
	No.	%	No.	%	No.	%	No.	%
Surface radium	143	78.1	119	83.2	3	2.1	21	14.7
Interstitial radium	2	1.1	2	100	0	0	0	0
Surface and interstial radium	21	11.5	15	71.4	5	23.8	1	4.8
Surgery	17	9.3	16	94.2	0	0	1	5.9

After Sharp, G. S.: Williams, H. F., and Pugh, R. E., Jr.: Irradiation as Preferred Treatment of Cancer of Lip, J.A.M.A. *142*:698-707 (March 11) 1950.

*Two patients with stage 1 lesions died of coronary disease, 1 during treatment and 1 two weeks after treatment.

†Lost patients (25) all had lesions in stages 1 and 2. All the patients with more serious lesions have been followed.

Read before the Section on Radiology, Texas Medical Association, Annual Session, Dallas, May 7, 1952.

8,000 gamma r in six to seven days, or 5,000 r to 6,000 r tumor dose (increasing the hardness of the beam proportionately to the size of the lesion) delivered in three to four weeks with external irradiation, are the base line figures. The treatment must be individualized depending upon the extension and clinical variety of the lesion, as some are more radioresistant than others. In the more extensive type of lesion, protraction is beneficial.

Buccal Mucosa.—Lesions of the buccal mucosa, because of the shape of that organ, are eminently suited for radium implantation. A single plane radium implantation can be used for early lesions, a double plane implantation for more advanced ones. The total dose can be given either by radium needling alone, or combined with external irradiation (3,000 to 4,000 gamma r and 3,000 r tumor dose from roentgen rays in two to three weeks). The cure rate is good (table 3) and cosmetic results very satisfactory. In most cases, surgery would have to be extremely extensive and mutilating, necessitating considerable repair. It must be remembered that lesions of the buccal mucosa metastasize more often than lip carcinomas and require either prophylactic neck dissection or a more careful follow-up of the neck.

TABLE 2.—Five *Year Results in Cancer of the Lip.*

Total number of patients treated (to end of 1943)		534
Indeterminate group:		
Died of other causes and without recurrence	42	
Lost track of without recurrence	16	58
Determinate group (total number minus indeterminate group)		476
Failures:		
Dead as a result of cancer	29	
Well but have had a recurrence within 5 years	21	50
Successful results: Free from disease after 5 years or more		426

Five Year End Results

Successful results divided by determinate group, 426/476=89.5%
Gross survival—well 5 years following original treatment, 447/476=94%

Final Results by Stages

Stage	No. Patients Treated	5 Yr. Net Survival (%)
1	479	93
2	36	69
3	15	33
4	3	0

Technique Analysis

Technique	No. Patients Treated	5 Yr. Net Survival (%)
X-Radiation	115	85
Radium Implant	349	91

After Burkell, C. C.: Cancer of Lip, Canad. M.A.J. *62*:28-33 (Jan.) 1950.

Lower Alveolar Ridge.—Early lesions of the lower alveolar ridge, without bone involvement, can be well treated by irradiation (table 3). Either a radium mold or interstitial radium implantation is the treatment of choice. If the lesion is easily accessible with an intraoral cone, 4,500 to 5,000 r delivered in ten days can be satisfactory. It must be remembered that the use of intraoral cones is justified only in early lesions where the beam of rays obviously covers very generously all of the lesion and where chances of motion during treatment are negligible. In more advanced lesions of the lower alveolar ridge, when the bone is involved, one at times can obtain appreciable results with a combination of radium therapy (3,000 to 4,000 gamma r) and external irradiation (3,000 to 4,000 r tumor dose). The patient must be watched carefully, and, if following the irradiation therapy there is residual disease, a so-called commando type of surgery still can be performed. One should never allow too lengthy a period to elapse between the original irradiation treatment and the surgery as the disease might get out of control. In those more advanced lesions, the so-called commando type of operation can secure a comfortable life for the patient, and surgery has a definite place in the treatment of such carcinomas.

Upper Alveolar Ridge.—Lesions of the upper alveolar ridge present a diagnostic problem except in the early cases in which the disease obviously has originated in the mucous membrane of the alveolar ridge. In more advanced ones, it is often difficult to determine whether the lesion has originated in the maxillary sinus with invasion of the alveolar ridge, or vice versa. This has a definite bearing upon the treatment, as lesions in the maxillary sinus are more likely to extend upward posteriorly and into the malar bone. Early lesions are amenable to radium implantation, molds, or intraoral therapy. Advanced lesions can be treated by external irradiation (5,000 to 6,000 r in four to six weeks) supplemented with interstitial radium implantation six to eight weeks later. Surgery may be used first or can follow the external irradiation instead of radium therapy.

TABLE 3.—*Cancer of Mouth: Analysis by Site of Cases Treated by Radium, 1940-1944; Results Five Years After Treatment.*

Site	Node-Free: No. Treated	Node-Free: Crude Survival Rate (%)	Nodes Involved: No. Treated	Nodes Involved: Crude Survival Rate (%)	Total: No. Treated	Total: Crude Survival Rate (%)
Tongue	203	42	81	10	284	33
Fauces	24	21	14	(7)	38	16
Floor	97	40	65	9	162	28
Palate	39	62	12	(25)	51	53
Cheek	74	61	8	(25)	82	57
Alveolus	64	47	37	11	101	34
Total	501	46	217	11	718	35

After Paterson, R.; Tod, M.; and Russell, M.: Results of Radium and X-Ray Therapy in Malignant Disease: Being the Third Statistical Report from Radium Institute of Christie Hospital and Holt Radium Institute, Manchester; Edinburgh, E. and S. Livingstone, Ltd., 1950.

Palate.—A distinction has to be made between the hard and soft palate. Lesions of the hard palate are often adenocarcinomas or tumors originating in the salivary and mucous glands. It is often thought that these tumors are very radioresistant, but good results

have been reported in cases with this type of histologic pattern. However, in these instances surgery may be seriously considered. Lesions of the soft palate are practically always squamous cell carcinomas and are best treated with irradiation. If the lesion is early, a radium implantation, either by needles or radon seeds, will be successful. A combination of radium or external irradiation is often advisable in more extensive lesions. With external irradiation, one can deliver only 5,000 r to 6,000 r in five to six weeks. It must be kept in mind that lesions of the soft palate metastasize with a high degree of frequency and often bilaterally.

Floor of Mouth.—Lesions of the floor of the mouth may originate there or be the site of a secondary invasion from either the alveolar ridge or the tongue. Intraoral roentgen-ray therapy (4,500 to 5,000 r tumor dose in ten days) or interstitial radium controls a high percentage of the early lesions. The so-called commando type of surgery has established itself as a valuable method of treatment in more extensive lesions of the floor of the mouth. In such cases, radiation therapy is not often successful, and even if there is a sterilization of the tumor, necrosis is not uncommon. If there is invasion of the periosteum, or of the jaw itself, bone necrosis may result. However, if there is invasion of the tongue, preoperative irradiation therapy, using either radium needle implantation alone or combined with external irradiation, is useful. Later on, if there is still residual disease or radionecrosis, a more economical combined operation can be done with no added technical difficulty.

Tongue.—A distinction must be made between the base of the tongue and the anterior two-thirds of the tongue. Some attempts have been made to treat base of the tongue lesions with surgery. However, owing to their anaplasticity and tendency to metastasize bilaterally, the only possible treatment is radiation therapy, which, unfortunately, is often unsuccessful. If the lesions are of the lymphosarcoma or lymphoepithelioma type, a good primary result may be achieved. Too often this success is followed by widespread metastasis. In keratinizing squamous cell carcinomas, radium implantation combined with external irradiation sometimes may achieve results if the lesion is not too infiltrative or deeply ulcerated. In this area supervoltage therapy is of some advantage.

In some institutions, the lesions of the anterior two-thirds of the tongue are once more treated by surgery because of the poor results obtained by either intraoral therapy, radon seeds, external irradiation, or a combination of approaches. The best results are obtained by low intensity radium interstitial implantation (fig. 1 and 2). For moderately advanced lesions, 7,000 to 8,000 gamma r is adequate; for large lesions, 3,000 to 4,000 gamma r, followed immediately by

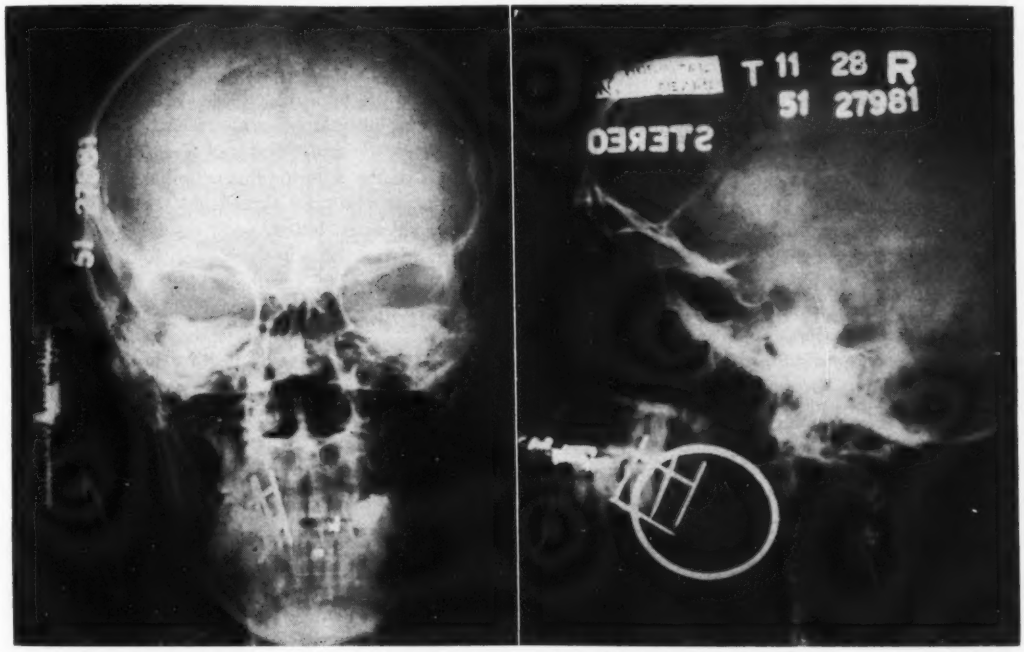

FIG. 1. Tumor (1 cm. diameter) on the right lateral border of the tongue. Therapy was 8,000 gamma r delivered in six days with a single plane implantation. The ring of known size was included in the picture to determine the magnification.

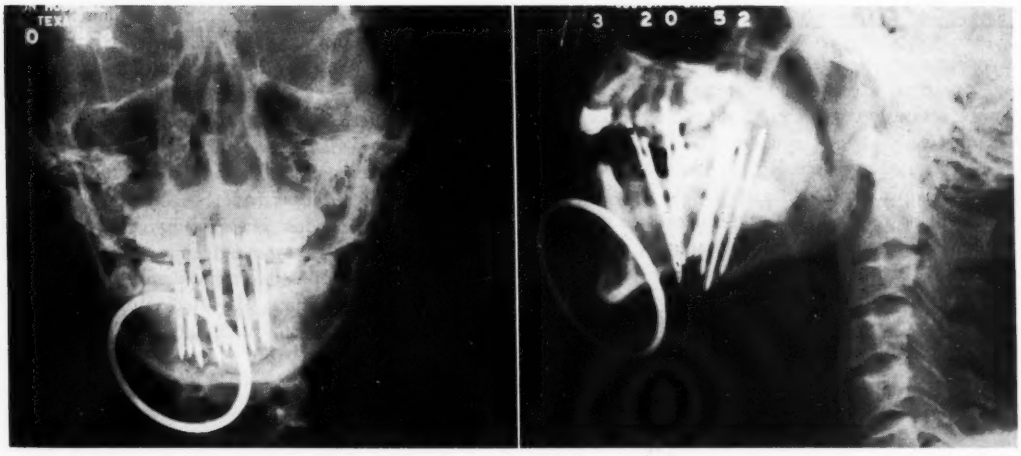

FIG. 2. Roentgenograms showing tumor of the under surface of the tongue (3 cm. in diameter) more on the right side. Therapy was 7,000 gamma r delivered in 106 hours by a cylindrical implant.

3,000 r tumor dose from external irradiation. It must be emphasized that not infrequently the primary lesion can be cured, but that the disease may eventually be beyond control because of metastases.

There are exceptions in the choice of irradiation for treatment of lesions of the anterior two-thirds of the tongue. Lesions on the tip of the tongue are probably best treated with surgery, for radium needles cannot be implanted easily in this area and intraoral therapy is extremely hazardous because of the difficulty of keeping the tongue still. Lesions of the dorsum of the tongue, associated frequently with the presence of syphilis, respond poorly to irradiation, and if they are resectable, they ought to be excised. It must be emphasized that, following radiation therapy, a local recurrence can be excised surgically without any appreciable added risk. Vascularization of the tongue promotes good primary healing as a rule.

Anterior Faucial Pillar and Retromolar Trigone.—Lesions of the anterior faucial pillars and retromolar trigone are clinically similar. In the early and moderately advanced lesion, good results are obtained by a combination of a tongue pterygoid implant (fig. 3) (3,000 to 4,000 gamma r) and 3,000 r tumor dose from external irradiation. Metastases are not too frequent.

Tonsil.—When one is dealing with an especially anaplastic tumor, such as lymphosarcoma or lymphoepithelioma, external irradiation alone including treatment of the node areas is the treatment of choice (5,000 to 6,000 r in five to six weeks). If there is involvement of the base of the tongue, interstitial

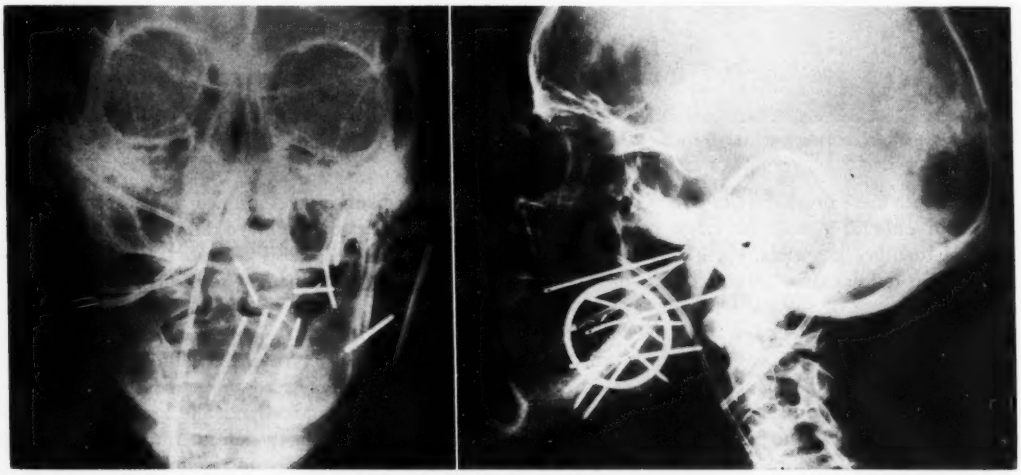

FIG. 3. Tumor on the retromolar trigone and faucial pillar. The metallic clip is at the center of the tumor. A so-called tongue pterygoid implant was used to deliver 4,000 r in three days. In addition, 3,000 r tumor dose were given in two weeks. The total dose of 4,000 gamma r and 3,000 r was given in less than three weeks.

radium implantation at that site four to eight weeks after the external irradiation may be indicated. In keratinizing lesions which are more resistant, it is difficult to deliver a sufficiently high dose by external irradiation alone to produce any consistent results. In this instance again, a combination of tongue pterygoid implant and external irradiation will produce the best results. In cases of this type the base of the tongue is routinely implanted.

SUMMARY

Both surgery and irradiation have their place in the treatment of oral cavity cancer, either as separate procedures or in combination. Irradiation can be given first to primary lesions of the lower alveolar ridges, floor of the mouth, and tongue. If failure is encountered, then the so-called combined operation (radical excision and removal of the primary lesion in one stage) still can be performed with no additional risk. Conversely, irradiation can be used primarily in the form of interstitial radium implantation to treat recurrences following surgery.

Low intensity radium implantation is by far the treatment of choice in oral cavity cancers with the exceptions of lips and tonsils, where external irradiation can play a considerable role. Small or moderately advanced lesions can be treated adequately with a tumor dose of 7,000 to 8,000 gamma r in about seven days. In large lesions, a dose of 3,000 gamma r to 4,000 gamma r in three to four days, followed by 3,000 r tumor dose from external irradiation starting immediately and delivered over a period of two to three weeks sometimes will give better results. This method insures a more homogenous dose to the large volume of tissue which must be treated. Considerable clinical experience is necessary to determine the indication of the methods of treatment, their complications, and causes of failure. Great care must be given to the patient's general condition and oral hygiene.

M. D. Anderson Hospital, 2310 Baldwin Street.

ABSTRACT OF DISCUSSION

DR. CHARLES L. MARTIN, Dallas: I am indeed pleased to note that Dr. Fletcher believes as I do that radiation therapy is the treatment of choice for intraoral carcinomas and that low intensity radium needles offer one of the best methods of administering such therapy. In my clinic, we use these needles for all intraoral lesions and have obtained satisfactory healing in approximately 70 per cent of all the cases treated. Surgery is reserved for complications and for lesions that are not completely controlled.

When this method was first adopted some eighteen years ago, roentgen-ray therapy was combined with the needle implantations, but it soon became apparent that the added radiation did not increase our cure rate, whereas it seemed to increase the number of radiation sequelae. Many authorities have condemned the use of interstitial sources for gingival lesions, but we have reported recently a series of 87 such cases with primary healing in 72 per cent and a 40 per cent cure rate in 70 patients followed for five years or more. Good results were obtained in some instances in which considerable bone destruction could be demonstrated. All metastatic lymph nodes are treated with a combination of implanted low intensity radium needles and roentgen-ray therapy, and the results compare favorably with those obtained with block dissection. As techniques have been improved, the number of radical jaw resections done in our clinic has been reduced to a minimum.

Operating Expense Two-Fifths of Income

The average physician in private practice spent $9,508, two-fifths of his gross income, on operating expenses in 1951, according to the January issue of *Medical Economics* in publishing the results of a nationwide survey of medical practice.

The average doctor's professional expenses rose 24 per cent from 1947 to 1951, the article stated. Major expenses are office assistants' salaries ($2,689), drugs and supplies ($1,996), office rent ($1,149), automobile upkeep ($882), and instruments and equipment ($661).

The survey found that doctors in small towns generally spend a higher percentage of their gross income on expenses than doctors in large cities. Operating costs also tend to be proportionately higher among physicians with low incomes than among those in the upper brackets.

COMMISSION STUDIES HOSPITAL SERVICE COST

The cost of hospital service for each day of patient care increased 79 per cent in the five years between 1946 and 1951, from a national average of $9.39 to $16.77.

The Commission on Financing of Hospital Care, an independent non-governmental agency, is conducting national studies to determine what part of this increase is due to rise in costs and what part is the result of expansion in services and new techniques in treatment. The Commission emphasizes operating efficiency to minimize hospital costs rather than curtailment of services.

Since many hospitals have been operating at a financial loss, or without adequate depreciation allowances for essential replacements, they have been forced to transfer a larger proportion of their costs to the patient. The only protection against financial catastrophe for the individual patient, and the only substantial new contribution to hospital income, is the voluntary prepayment program. Over half the population now has some form of prepaid protection against the costs of hospitalization.

The Commission's findings and recommendations will be published in a final report, "Financing Hospital Care for the American People."

Increase in Number of Patients

The average physician's number of patients has increased 12 per cent in the last four years, according to a nationwide survey made recently among the readers of *Medical Economics*. The physician in private practice works fifty-eight hours weekly and sees 28 patients in a typical day, the magazine's February issue revealed.

CARCINOMA OF THE ESOPHAGUS
Surgical Treatment

WILLIAM D. SEYBOLD,* M.D., F.A.C.S., Houston, Texas

THE interest of the surgeon in the problems of carcinoma of the esophagus is old, but it was rather unproductive until developments in anesthesia and thoracic surgery permitted him to work in the thorax with relative safety for the patient and until the demonstration, a little more than a decade ago, that the stomach could be used as a substitute for the esophagus. Now the patient with cancer of the esophagus has a good prospect of cure if the lesion is discovered and removed while it is still confined to the esophagus. The experience of many surgeons and the reports of Garlock,[2] Sweet,[5] and Strieder[4] justify this optimistic appraisal of the outlook for these patients. Unfortunately, however, only a small proportion of the patients with cancer of the esophagus come to the surgeon while the disease is still local. The outlook for patients with widespread lesions is poor indeed.

Immediate progress in the management of cancer of the esophagus will depend on earlier diagnosis. Early diagnosis depends upon alertness to the first symptoms of cancer of the esophagus and upon a conviction that such a diagnosis is not cause for utter despair. Although it is not always possible to make the diagnosis early before the lesion has spread beyond the confines of the esophagus, a review of any series of case records will convince everyone that many months have been lost between the onset of symptoms and the time of diagnosis in most patients with the disease.

FREQUENCY

Carcinoma of the esophagus is a rather common form of cancer in men. One of the by-products of the recent great advance in thoracic surgery is the realization that cancer within the thorax is a common and not, as most physicians were taught in our introduction to pathology, a rare form of cancer. Today, we know that cancer of the lung vies with cancer of the stomach for first place in frequency of visceral cancer in the male. Likewise we are learning that cancer of the esophagus is common enough to demand serious attention. Sweet has reported that at the Massachusetts General Hospital admissions for cancer of the esophagus are two-thirds as great as admissions for cancer of the stomach.

Cancer of the esophagus is predominantly a disease of males. In most series reported in this country the ratio of males to females is five to one.

DIAGNOSIS

Difficulty in swallowing is almost invariably the earliest symptom of carcinoma of the esophagus. This symptom results from partial obstruction of the esophagus, and it seems unfortunate that small, early mucosal lesions produce no significant obstruction. As with cancers of the colon, obstruction develops only after most or all of the circumference of the tube has been involved by the growing lesion. This means that the cancer probably has been present and growing for months before the first symptom appears.

Dysphagia or difficulty in swallowing is the paramount symptom in carcinoma of the esophagus. It is first in order of appearance and first in order of frequency. It is the cardinal symptom in cancer of the esophagus that colic is in intestinal obstruction or that abnormal bleeding is in cancer of the uterus. The development of one of these symptoms does not, within itself, establish the presence of serious organic disease, but it is a warning that such a cause must be sought immediately if we physicians are to extend the benefits of early diagnosis to a maximum number of people. We must view with suspicion the esophagus of every patient who gives a story of dysphagia, even though it may have been slight and transient. Dysphagia developing in the middle-aged male is usually due to cancer of the esophagus. Therefore, it is a symptom that demands immediate investigation by roentgenologic and esophagoscopic means.

In the beginning, dysphagia may be slight and intermittent. Often a patient with cancer of the esophagus will relate that a piece of meat or bread seemed to "get stuck" but that the sensation disappeared in a few moments. By avoiding meats and chewing carefully he often is able to avoid trouble for a time, but, inevitably, his diet becomes more limited until finally he is able to swallow nothing but liquids.

Occasionally pain is an early symptom of cancer of the esophagus. In character and severity it varies greatly. Usually it is substernal, and the level at which it occurs corresponds roughly to the level at which the lesion is found. It may occur only during swallow-

Read before the Section on Surgery, Texas Medical Association, Annual Session, Dallas, May 6, 1952.

**Associate Professor of Clinical Surgery, Postgraduate School of Medicine of the University of Texas, and Assistant Surgeon, University of Texas, M. D. Anderson Hospital for Cancer Research.*

ing or it may be entirely unrelated. Reference of the pain to the back usually signifies extension of the carcinoma into the periesophageal tissues and, therefore, is a grave symptom. Constant pain or pain that extends into the back is commonly interpreted as a symptom of inoperability.

Loss of weight is not an early sign and becomes apparent only when severe obstruction develops. It may be extreme.

In lesions of the upper thoracic esophagus, hoarseness indicates probable involvement of the recurrent laryngeal nerve. A brassy cough usually means invasion of the trachea or of the left main bronchus.

There are usually no physical signs of carcinoma of the esophagus other than those of loss of weight. An enlarged supraclavicular node always should be sought because cancer of the esophagus frequently metastasizes to nodes in this area. The removal and examination of such a node may be a simple means of diagnosis and of determining the advisability of surgical treatment.

Roentgenologic examination of the esophagus using barium sulfate is the most important diagnostic procedure available. Carcinoma of the esophagus interferes with the free flow of barium, and, since ulceration is almost always present, destroys the normal mucosal pattern in the area of involvement. The nature of the defect is usually evident if several roentgenograms are made.

Esophagoscopy for the purpose of biopsy is usually in order when an obstructing or stenosing lesion has been demonstrated by means of roentgenologic examination. However, failure to obtain cancerous tissue in the biopsy specimen does not exclude the presence of carcinoma, and a second biopsy may be desirable. It is a fact worthy of emphasis that the surgeon should not always postpone operation until a definite pathologic diagnosis can be established. Confronted with a man, middle-aged or older, who complains of dysphagia of recent origin and whose films of the esophagus show a characteristic filling defect, the surgeon not only is justified in counseling exploration in spite of failure to get a positive biopsy but he is committing a serious error if he fails to urge it. Not only should operation be advised in this situation, but occasionally also when the stenosing lesion in the esophagus lacks the roentgenologic character of a cancer. The risk of exploratory thoracotomy is small, and a strong suspicion of

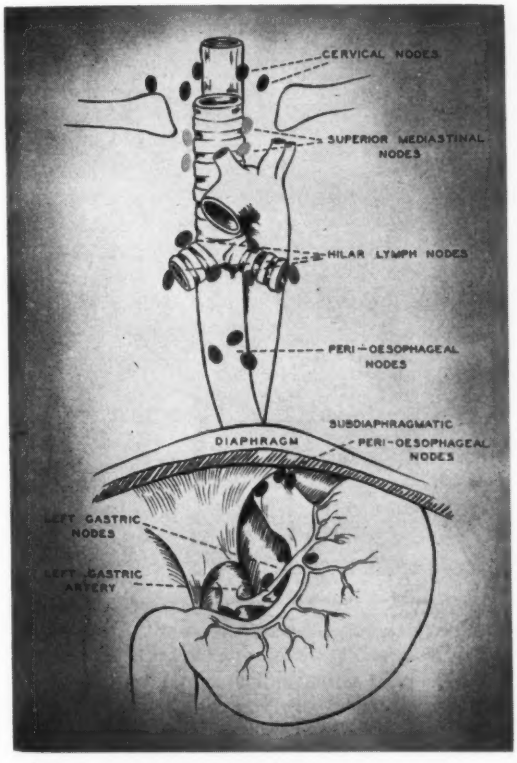

FIG. 1. Lymph nodes of the esophagus.

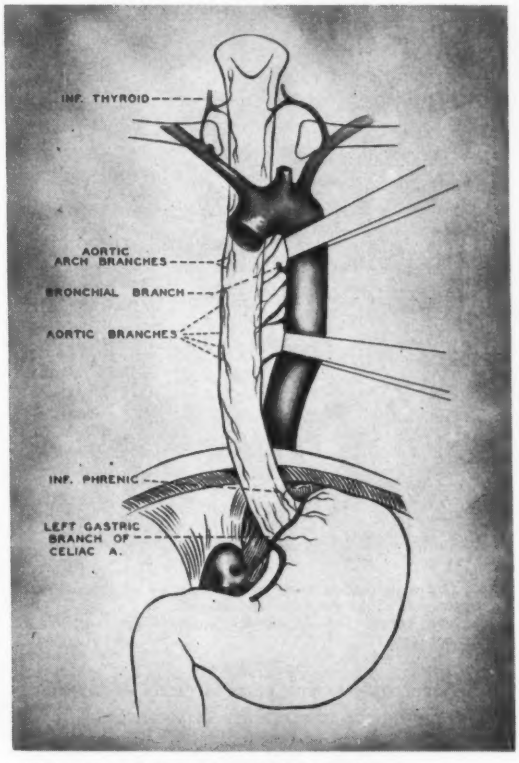

FIG. 2. The arterial blood supply of the esophagus.

cancer based on careful consideration of all the facts in a given case justifies exploration in the absence of a positive pathologic diagnosis and in the absence of a characteristic roentgen picture. The passage of an esophageal sound over a previously swallowed thread can give valuable information about the nature of an obstructing lesion. An experienced endoscopist often can distinguish between the resistance offered by a fibrous stricture and that offered by a cancer.

in the upper part of the esophagus, perforation into the trachea or the left main bronchus is a frequent and distressing development.

Carcinoma may occur at any level in the esophagus, but it is most common in the middle third and least common in the upper third.

The lower deep cervical, posterior mediastinal, and left gastric nodes receive lymph from the esophagus. In general terms, lymphatic vessels from the upper half of the esophagus ascend and those from the lower half descend, but it has been an observation of many

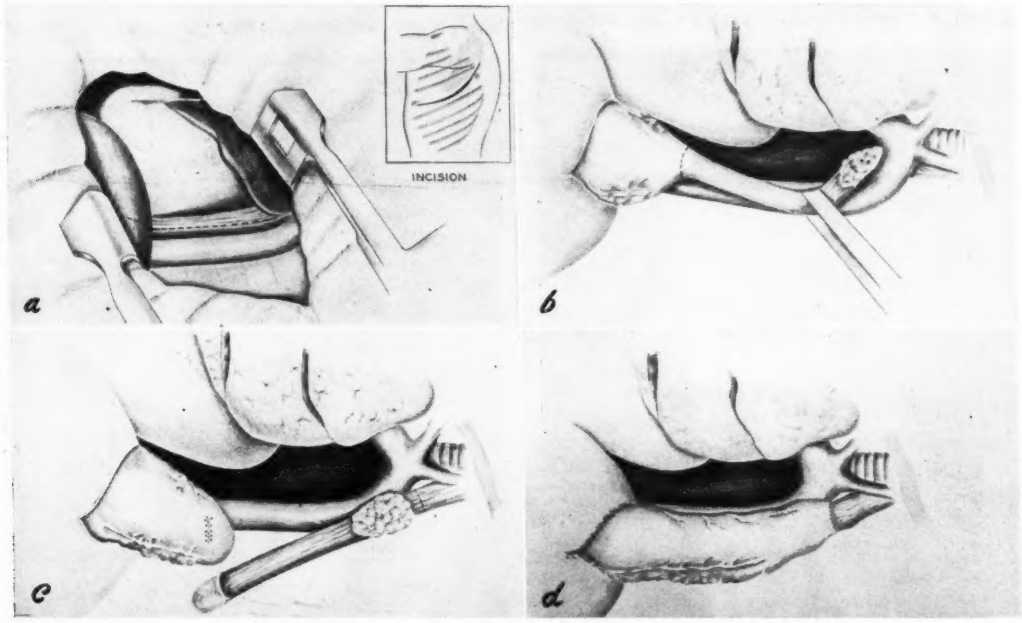

FIG. 3. Steps in surgical resection of carcinoma of the esophagus with anastomosis of the esophagus and stomach.
a. Incision (*inset*) and left thoracic approach for carcinoma of the midesophagus.
b. Mobilization of esophagus and stomach.
c. Line of proximal section of esophagus.
d. End-to-side esophagogastrostomy completed.

Esophagoscopic examination is rarely of assistance in determining the resectability of a cancer.

PATHOLOGY

The mucosa of the esophagus is squamous cell in type, and squamous cell carcinoma accounts for approximately 99 per cent of cancers of the esophagus. Rarely an adenocarcinoma having its origin in the submucous glands is encountered.

Most of the lesions are undifferentiated, that is, of a high grade of malignancy, and metastases to regional nodes occur early. Like most cancer of the gastrointestinal tract, cancer of the esophagus spreads circumferentially, though its vertical spread is sometimes great, and ulcerates early. When it extends through the muscular coat, it becomes adherent to or invades adjacent organs. When the lesion is located

surgeons that metastasis to nodes along the lesser curvature of the stomach occurs in lesions located about the level of the aortic arch (fig. 1).

SURGICAL TREATMENT

Anatomy.—The relation of the esophagus to the trachea, the left main bronchus, the pericardium, and the aorta are important considerations in understanding the technical problems of resection of the primary lesion. Invasion of or dense adherence to one or more of these structures is the usual reason for the surgeon's inability to remove the tumor.

The arterial blood supply of the esophagus is segmental and is derived from three main sources (fig. 2): that to the cervical and upper thoracic portion of the esophagus comes from the inferior thyroid arteries; that to the esophagus from the level of the

aortic arch to the diaphragm comes through branches of the arch and the descending aorta; and that to the abdominal portion is derived chiefly from the left gastric artery. Though the blood supply is meager, it is sufficient to support satisfactory healing of suture lines if the esophagus is handled gently. Unnecessary mobilization must be avoided.

Technique.—In the surgical management of carcinoma of the esophagus little progress was made until Adams and Phemister[1] showed that the stomach could be mobilized and used as a substitute for the esophagus in reestablishing the continuity of the alimentary canal after resection of lesions in the upper end of the stomach and the lower end of the esophagus. By the perfection of this technique and the extension of its use to the management of lesions in all portions of the thoracic esophagus, today the experienced surgeon can offer the patient suffering from cancer of the esophagus a good chance of cure provided the lesion is local. Such a procedure has three features to recommend it: (1) it is relatively simple in that it can be accomplished in a single operation; (2) it is reasonably safe; and (3) it is compatible with satisfactory gastrointestinal function. Furthermore, it permits resection that is as adequate from the cancer standpoint as any other method. Because of the intimate relationship of the esophagus to vital structures in the neck and thorax, excision of a wide margin of normal tissue surrounding a carcinoma of the esophagus is never possible.

The essential steps in this procedure are shown in figure 3.

Cancers of the cervical portion of the esophagus constitute a special problem. The operative procedure of Wookey[7] (fig. 4) is the most satisfactory solution to the surgical problem that we have today. With this procedure, restoration of function is satisfactory and a number of long-term survivals have been reported.[6]

Results.—My experience with the surgical treatment of cancer of the esophagus is summarized in table 1. It should be noted that in 27 of the 49 cases included in this table, the lesion arose in the cardia of the stomach and involved the lower end of the esophagus by direct intramural extension. Though

TABLE 1.—*Carcinoma of the Cardia and of the Esophagus.*

	Cancer of Cardia	Cancer of Esophagus	Total
Patients explored	27	22	49
Lesions resected (primary esophagogastric anastomosis)	19	15	34
Died	3	2	5
Cause of death:			
Failure of suture line	3	0	3
Cardiac failure	0	2	2
Anastomosis above the aortic arch	0	9	9

FIG. 4. Steps in the operative procedure for carcinoma of the cervical portion of the esophagus.

a. Illustration of the lesion showing the area to be resected.

b. The Wookey procedure, first stage. Permanent tracheostomy is established. The larynx and cervical portion of the esophagus are excised en bloc. A full thickness skin flap is laid in the bed from which these structures were removed. The pharynx opens to the exterior at the upper edge of the skin flap. The opening of the esophagus is at the lower margin of the skin flap.

c. The Wookey procedure, second and final stage. Several weeks later a skin tube is fashioned from the skin that lay over the bed of the resected lesion. The skin is mobilized on each side and approximated in the midline over the new skin tube after the ends of the tube have been anastomosed to the pharynx above and to the esophagus below.

this experience is small, it parallels closely that reported in the larger series of Sweet, Garlock, Clagett,[3] and others.

Considering the magnitude of the operation and the average age of the patients who are victims of the disease, the operative risk is not great.

The follow-up studies reported by Sweet[5] suggest that the outlook for patients with carcinoma of the esophagus who have been treated by radical resection involving wide excision of the primary lesion and all possible regional lymph nodes is similar to that of patients having had resection for cancers of like grade and extent in other organs in the body.

SUMMARY

Cancer of the esophagus is a fairly frequent form of malignant disease in the adult male. It is a disease that can be cured if it is removed at the stage when it still is confined to the esophagus. At the present time, few patients with cancer of the esophagus come to the surgeon while the disease is still local, but alertness to the first symptoms of cancer of the esophagus could improve considerably the present record in treatment of this disease.

Difficulty in swallowing is the paramount symptom in carcinoma of the esophagus. Its development calls for immediate investigation by roentgenologic and esophagoscopic means.

Roentgenologic examination of the esophagus with barium sulfate is the most important single method of examination. When an obstructing or stenosing lesion of the esophagus has been demonstrated by this means, esophagoscopy for the purpose of biopsy is usually in order.

Most carcinomas of the esophagus are squamous cell in character and of a high grade of malignancy. Metastases to regional nodes and adherence to or invasion of contiguous structures are common developments.

The principle of surgical treatment is excision of the primary lesion with removal of all available regional lymph nodes and the reestablishment of alimentary continuity by anastomosis of the esophagus to the stomach, which has been mobilized and brought up into the chest.

Cancer of the cervical esophagus constitutes a special problem which is best handled by the Wookey procedure, the principal steps of which are illustrated.

The outlook for patients with carcinoma of the esophagus who have been treated by radical resection is similar to that of patients having had radical resection for cancers of like grade and extent in other organs of the body.

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Hermann Professional Building.

ABSTRACT OF DISCUSSION

DR. A. W. HARRISON, Galveston: This scholarly presentation by Dr. Seybold has summed up clearly the problem facing us in carcinoma of the esophagus. When he gave the prognosis as being that of other visceral cancer, he placed it in its proper relationship but in a way glossed over what is really a discouraging picture. The prognosis for long-term survival, as that in other visceral cancer, is extremely poor.

At the present state of our knowledge earlier diagnosis seems to be the one avenue of attack. Just how early it would be necessary to remove these lesions has never been determined, and in the minds of some it is doubtful whether this will ever be of practical importance. Five year survival even in those cases happened upon early has been rare indeed.

There is, on the other hand, an important question of more practical and immediate concern to the patient, that of palliation. Gastrostomy has never appeared to be any better than a last ditch effort. Real factors involved are ability to eat, risk of operation, comfort, and freedom from fear. If metastases are suspected or found at operation, the problem is how long can the patient be expected to carry on with his metastases. If there is reasonable expectancy of recovery from operation and return to relative comfort and normal activity, I firmly believe that resection is justified. Of those who object, I simply ask a better solution.

My feeling is that the lesion should be resected even incompletely if at all possible and an anastomosis done when other factors are not too strongly arrayed against that decision. The results have to me justified this attitude.

Other palliative approaches such as roentgen-ray therapy have not been very attractive. Shunting operations to bypass the tumor and reestablish the continuity of the alimentary tract are being more strongly advocated. Where I could be sure this was less risky and more favorable for the patient, I would prefer such a procedure.

I would like to hear what Dr. Seybold's attitude is in this more particular aspect of his discussion.

DR. SEYBOLD, closing: I agree with Dr. Harrison that if the primary lesion can be removed and the continuity of the alimentary tract reestablished, it is a desirable procedure even in the face of regional or distant metastasis. By carrying out such a procedure, the remaining days of the patient can be made more comfortable, even though it is unlikely that his life will be prolonged. I have had no personal experience with palliative procedures which leave the primary lesion in place, but by-pass it by bringing up the stomach or the small intestine into the chest.

Multiple Primary Cancer of the Bowel, the Bladder, and the Skin

CHARLES PHILLIPS, M.D., Temple, Texas

As we press our campaign against cancer one of the most interesting and challenging facts is the discovery that certain patients are particularly prone to develop more than one malignant neoplasm. Usually, this is a surprise and, except in the case of certain persons having skin of susceptible type, is not given due consideration by doctor and patient in discussing therapy, cure, and prognosis.

Just what do we mean by the term "multiple primary cancer"? There are numerous excellent articles on the subject with criteria given for determination of the identity and independence of the growths; and, although authors differ somewhat as to details, they agree in general that the individual tumors must be separated by distance and usually by time and that care must be exercised to exclude recurrence and metastasis. For this paper I have chosen bowel, bladder, and skin because these organs furnish most of the multiple primary cancers and because in these sites occurrence in most instances can be seen or recorded accurately by modern radiologic technique[4] and instruments.

BOWEL

Between the years 1920 and 1951 there have been recorded in our laboratories 28 malignant neoplasms of the small intestine and 1,202 of the large intestine, including the anus but excluding anal tags or papillomas. In the duodenum, the jejunum, and the ileum there have been 10 benign growths in this order of occurrence: duodenum, ileum, jejunum.

The malignant tumors have been largely adenocarcinomas, although there were a few lymphosarcomas and adenocarcinomas of the carcinoid type. In the appendix, colon, rectum, and anus there were 359 benign neoplasms. The same sites have given us malignant processes as follows: 1,157 adenocarcinomas; 13 adenocarcinomas, carcinoid type; 20 squamous cell carcinomas; 3 leiomyosarcomas; 9 lymphosarcomas. In a current report on cancer of the large bowel Brindley and Rice[1] studied 1,090 cases and found 4.6 per cent of multiple primary cancer within the bowel alone. Cancer there and in other sites in these patients gave an incidence of 9.7 per cent.

From the Department of Surgical Pathology and Pathologic Anatomy, Scott and White Clinic.

Read before the Section on Clinical Pathology, Texas Medical Association, Annual Session, Dallas, May 7, 1952.

For the purpose of this study I have included only those malignant neoplasms which were seen in the decade 1941-1950 and upon which satisfactory microscopic examination was made. Attention is called to the modern note of "carrying the fight to cancer" in the more critical study now given to the so-called polyps, which are described as adenomas and in which are noted the early in situ changes which may precede evolution into invasive carcinoma. These changes are observable but not predictable, although there is good reason to suspect progress from one to the other. Today, there is increasing use of endoscopic instruments, which bring into view numerous small elevations of the mucosa of the sigmoid, the rectum, and the anorectal canal. Many of these elevations are palpable. The lesion, or part of it, is removed for biopsy and sent to the pathologist for microscopic examination. In view of the well-known finding that carcinoma starts on the exposed part of a polypoid lesion and that careful study often shows changes in cell pattern, nuclear arrangement, and hyperchromatism associated with early malignancy, the laboratory report frequently shows a low-grade adenocarcinoma in polypoid adenoma. This lesion may have been silent and discovered only at routine physical examination, but the responsible physician should understand the seriousness of this report and recognize that he is dealing with early carcinoma and not simply a "polyp in the bowel."

In spite of some current criticism of much of the program of eradication of cancer in the early stages in reference to survival of the patient, I feel strongly that this approach is sound and the methods are accurate and that the patient and the doctor are fortunate in the discovery of early carcinoma in the lower bowel particularly, since so much can be done for it so easily. If the lesion is single and destroyed locally, the prognosis is good. Unfortunately, the area from which the first growth originated may develop more than one, at the same time or later. A more serious situation is that of multiple larger carcinomas higher up in the colon, for these may be either small and polypoid or larger and ulcerated, silent or bleeding, and suggested by the complaint of the patient or discovered by the radiologist in routine or special studies.[4] Data from our institution show that 1 in 20 of our patients with cancer of the large bowel had another cancer in the large bowel in simultaneous oc-

currence or developed one or more later. In another study from our laboratory, by Broders, Phillips, and Stinson,[2] using 1,202 cancers of the large bowel, we found that enough of the patients developed new malignant neoplasms in other organs and sites that the multiple primary cancer rate came to 8 per cent.

Cancer of the small bowel is much less frequent and is usually in single occurrence except for lymphosarcoma and an occasional adenocarcinoma of the carcinoid type. I believe that from time to time we see unicentric lesions of lymphosarcoma and that surgical removal, with or without deep roentgen-ray therapy, will give good survival figures. When I see one of these, I wonder when and where the next lesion will appear as part of systemic lymphosarcoma. The seriousness of this situation is well known. In our laboratories we have recorded 18 cases of lymphosarcoma, 9 of the small bowel and 9 of the large bowel. None were in multiple occurrence as based upon excised specimens.

Most of us remember the so-called carcinoid because of its occurrence in the tip of the appendix, where it seemed to remain as a local tumor and was apparently benign. Its position beneath the mucosa lent support to this contention. At this time I do not enter into a discussion of the cells of origin of the carcinoid tumor but merely state my position that this is a variant of adenocarcinoma and that its behavior justifies that belief. In the literature there are enough reports to show this fact and the occurrence of this neoplasm in multiple sites. We have recorded 6 cases of adenocarcinoma of the carcinoid type, none in multiple occurrence.

BLADDER

The clinical significance of the growth of one carcinoma of the bladder is so well known that no argument is needed here to prove that the patient with one is likely to have another. Some take the position that all neoplasms starting from the lining mucosa in papillary form are malignant, regardless of their histologic structure. I do not go so far and still call these tumors benign or malignant depending upon the picture given by the cells. It is true that, if the physician waits long enough and if the patients return regularly for inspection, more and similar neoplasms will be seen at or near the original sites of growth. Eventually, many of these patients will be classified as those with carcinoma instead of simple papilloma. No physician understands the reason for this, but there is little disagreement as to the frequency of occurrence of cancer of the bladder in these patients. The cystoscopist and the pathologist often cannot tell which tumor is a recurrence and which a new growth. The attempt to do this and to follow the results have resulted in confusion in reference to many patients with multiple growths. In the ten years ending with 1950 we have recorded 100 patients with cancer of the bladder microscopically verified, and 39 per cent of these cancers were in multiple primary occurrence.

SKIN

Cancer of the skin in its various aspects and frequency of occurrence is so well understood by physicians in the Southwest that no argument on my part is needed. From this Clinic over a twenty-year period there has appeared a series of papers on different aspects of skin cancer. The total number of individual lesions of skin cancer in our records is now well over 5,000, all microscopically verified. Elsewhere in the nation where the incidence is less, we in Texas, in discussing this problem, are accused in a polite way of simply telling another "Texas tall tale."

Samples of data from our laboratory files over a thirty-year period show that certain patients when they reach 40 years of age or more and are of blond type and outdoor occupation simply become victims of skin cancer on light-exposed areas. More than one-fourth of these patients when followed carefully by means of good records will be found to have multiple primary skin cancer with from 2 to 40 accurately identified lesions, developing over many years. It is difficult to decide upon the true primary character of these carcinomas, for they are notable for recurrence as well as new primary growth in or near the treated site. The decision must be made separately for each neoplasm, and in our series we have been conscientious in doing this with close liaison between the excising surgeon or dermatologist and the pathologist. We find that a common fault in treatment is the incomplete first local destruction; this is especially true of lesions about the face, on which cosmetic results are desirable.

It has been shown repeatedly that keratoses develop in the same sites and age groups as cancer and that biopsy is the only final answer to the question of malignancy of a given lesion. This raises an important question concerning diagnosis and treatment, but let me point out that the large number of verified skin cancers reported from our institution over many years is largely due to diligence in accurate classification from biopsy rather than to an unusual service in dermatology. Some say that biopsy of each lesion is not necessary. Data such as we have reported for years could never have been accumulated without routine biopsy, for now we know not only that skin cancer is common but also that its tendency toward multiple occurrence is great and that these facts are needed in recognition, treatment, and prognosis as

well as knowledge of the general incidence of different types of cancer.

DISCUSSION

Science recognizes that the accumulation and recording of data are valuable because of the nature of these data. Medical science records and utilizes them in treatment and control of disease. The question facing us now is what this high incidence of multiple primary cancer of bowel, bladder, and skin means in reference to clinical medicine. I should like to stress the following points.

There are ample data to prove that the three organs under consideration give an unusually high incidence of multiple primary cancer within themselves, either in simultaneous occurrence or in sequence.

The sites of growth are, in most instances, readily accessible to palpation, to visualization by means of endoscopic instruments, and to radiologic methods.

The occurrence in these organs is such that the patient and the physician must remember these facts and maintain systematic vigilance in detecting other neoplasms.

Treatment of each lesion is usually independent of that of others, but we should not rely upon the destruction of one cancer to give any reasonable protection against development of a new primary cancer. Care should be exercised to exclude recurrence. This is not easy and requires an objective approach. Either multiple recurrences or multiple primary cancers may invite consideration of radical procedures.

From many available data we usually can estimate the prognosis in any cancer; but, when new cancers develop in the same or other organs, it is difficult to decide upon the prognosis. One of my duties in our institution concerns follow-up studies in our tumor clinic, and almost every day we must decide upon the outlook or the cause of death of patients having multiple primary cancer. In cases coming to autopsy, confusion still exists in some instances because of the wide dissemination of lesions. I have much sympathy for the physician in last attendance on these fatal cases of multiple cancer in his conscientious endeavor to be accurate in signing the death certificate. I deplore the loose and unscientific habit some physicians have of putting down on the certificate any general cause, such as myocarditis, senility, cancer, pneumonia, or apoplexy, which seemingly comes to mind without regard to details of the spread of cancer in metastasis.

I advocate a frank conference between the patient and the physician in cases of cancer of the bowel, the bladder, and the skin because, unless the patient is warned of the meaning of the lesion and urged to report to his physician systematically, the physician certainly cannot exercise control of these malignancies and by early recognition and treatment prevent greater disaster. Relative control of one cancer in a given organ should not cause the physician to forget that a certain number of multiple primary cancers develop later in separate organs and that this is a definite factor in statistics on survival from cancer.

Phillips and Shirey,[3] reporting from our institution in 1950, surveyed 7,401 miscellaneous cases of cancer and found that 5.1 per cent represented multiple primary cancer at some time. The incidence of multiple cancer of the bowel was relatively low. For the bladder the incidence was 11 per cent. For the skin the incidence was 10.5 per cent for 2,714 patients. With present techniques these rates are higher. For instance, the rate of multiple primary occurrence in the past ten years was 39 per cent for cancer of the bladder, while the rate of multiple primary occurrence in 1950 was 28 per cent for cancer of the skin.

In Texas, in 1950, cancer of the stomach led the cancer mortality figures, with cancer of the colon and rectum coming in as a close second. Death from cancer of the bladder and cancer of the skin came well down on the list. In our state the only accurate data on the incidence of cancer have been supplied by individual or hospital reports, for cancer as such is not now a regularly reportable disease. It might be well if those responsible for control of cancer in Texas would unite in a campaign to have this disease reported as any contagious disease.

SUMMARY

From current and carefully classified data there is pointed out the importance of the high incidence of multiple primary cancer in bowel (8 per cent), bladder (39 per cent), and skin (25 per cent).

In these organs most cancers are accessible for diagnosis by palpation and modern radiologic and endoscopic techniques.

Multiple primary cancer may occur in any of the organs named simultaneously, in sequence, or later in separate organs.

Recognition of the importance of these facts affects case histories, treatment, and prognosis and is an important element in cancer control.

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ABSTRACT OF DISCUSSION

DR. H. W. NEIDHARDT, Beaumont: I am sure that all of us who have been practicing pathology for any length of

time have been aware not only that multiple primary malignant tumors occur, but that they are not especially rare, even discounting for the moment the well-known proclivity of basal and squamous cell carcinoma to present as multiple lesions of the skin.

As opposed to this observation, I recall that as students in medical school we were taught that multiple primary malignant tumors were almost curiosities, or at least extremely uncommon. I think it likely that this attitude stems from the influence of more or less ancient statistics of the reported instances of multiple primary malignant tumors from large European medical centers. It is interesting to note that the reported instances ranged from 0.3 per cent to as high as 6.8 per cent, the latter in more recent compilations. Undoubtedly, one of the main factors contributing to the apparent increase in multiple primary malignant tumors is the obvious fact that we now have access to the newer diagnostic procedures already mentioned by Dr. Phillips.

In the discussion of malignancies of the bowel the problems of diagnosis of early malignant change versus merely "suspicious" or "premalignant" change are recognized and the difficulties arising therefrom are implied. The conclusion is inevitable that the lack of unanimity in the points of view of different individuals in their willingness to classify any given lesion as benign or malignant has deterred an incisive approach to this whole subject.

The problem of lymphosarcoma of the bowel in reference to the subject at hand is an extremely difficult one to evaluate because somehow lymphosarcoma of the gastrointestinal tract does not behave in the same manner as usual clinical forms which are more suggestive of generalized and/or multicentric disease. On the other hand, lymphosarcoma of the gastrointestinal tract often seems to be a perfectly localized lesion, sometimes with no lymph node involvement whatever.

The figures cited in regard to cancer of the urinary bladder are what might be expected in view of our knowledge of the biology of this disease and generally reflect the current thought on this subject.

The topic of multiple cancers of the skin is extremely well summarized and reflects Dr. Phillips' unusually wide acquaintance with this field. However, it would have been informative to have a breakdown of the figures to include such interesting conditions as cutaneous fibrosarcoma and, possibly, multiple malignancy associated with von Recklinghausen's neurofibromatosis.

It seems to me that this paper seeks, above all, to drive home two points: (1) a plea for better records and the exercise of care and accuracy in filling them out and (2) a suggestion that cancer be made a reportable disease. These points have been reinforced by what has gone before and are presented with force and clarity. Certainly it is true that only through conscientious effort and meticulous striving for accuracy can we hope to obtain really worth-while vital statistics on cancer.

CARCINOMA OF THE CECUM

Acute Appendicitis as the Presenting Symptom

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ACUTE appendicitis is one of the common abdominal diseases treated surgically. In the pathogenesis of acute appendicitis, it has been shown that obstruction of the lumen of the appendix is an important etiologic factor in approximately half of the cases.[7]

When the entire colon and rectum is considered as an anatomic unit, the cecum is the site of a carcinoma in about 6 per cent of the instances.[3] This does not mean, however, that carcinoma of the cecum is numerically uncommon.

Theoretically, it would seem that an acute appendicitis as a result of obstruction by a carcinoma of the cecum could occur not infrequently. Such a coexistence of the two conditions is not often reported since there are only 28 cases in the medical literature. But more to the point, when a carcinoma of the cecum has been the underlying disease, the tumor has generally been overlooked with a resultant excessive morbidity for the patient.

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This report is submitted primarily to direct attention toward an uncommon etiologic agent of a common condition, so that it may be given due consideration should the occasion arise.

It has been generally accepted that the classical picture indicative of a carcinoma of the right colon includes profound anemia, weakness, weight loss, and alternating bouts of constipation and diarrhea. The prevalence of this syndrome is not substantiated in a recent report on the clinical aspects of carcinoma of the cecum and ascending colon from the Henry Ford Hospital. This review[4] shows that, in patients with carcinoma of the right colon, the presenting symptom was pain in 76 per cent of the cases; and in 60 per cent of the patients, the presenting symptom was pain in the right lower quadrant or the lower part of the abdomen. Three per cent of the patients in the aforementioned report had had appendectomies performed within the previous three months before the carcinoma of the colon was diagnosed.

In a large series of cases of carcinoma of the right colon reported by C. W. Mayo,[12] it was found that

an appendectomy had been performed after the onset of symptoms in 15 per cent of the cases. Because of this fact, Mayo advised that an incision sufficiently large to allow examination of the right colon should be made when operating on a patient more than 30 years of age for acute appendicitis.

Undoubtedly, acute appendicitis as a result of a carcinoma of the cecum occurs many more times than can be assumed from the few random cases in the literature. The paucity of reports is probably accountable to two factors as follows: (1) the primary appendectomy and the definitive diagnosis and therapy may not be done at the same institution; and (2) unless the tumor of the cecum is recognized at the time of surgery for appendicitis, the end results are likely to be poor.

In a series of cases of carcinoma of the cecum recently reported by Patterson and Deaver,[16] it was found that 10 per cent of the patients had acute appendicitis as a complication of the cecal malignancy.

Since the first case of acute appendicitis and carcinoma of the cecum was reported in 1906, a total of 28 cases have appeared in the literature and another case is added with this report. From a study of these cases,[1, 2, 5, 6, 8-11, 13-15, 17-21] it is apparent that the history and physical findings were indicative of some stage of the pathologic process resulting from acute appendicitis. Such was the primary diagnosis in each case, and each was managed accordingly.

ANALYSIS OF CASES

Since carcinoma of the cecum is most common in the fifth and sixth decades of life, it seems likely that the coexistence with acute appendicitis would tend to this older age group. The age distribution in the 29 patients studied is depicted in table 1. It is interesting to note that a sizable portion of the group occurred in the younger age group, where the incidence of acute appendicitis alone is high. There were 18 males and 7 females in the series. In 4 case reports from the foreign literature, the sex of the patients was not stated.

TABLE 1.—*Age Distribution of Patients with Carcinoma of Cecum and Acute Appendicitis.*

Age (Yr.)	No. Patients
21-30	2
31-40	4
41-50	7
51-60	7
61-70	6
71-80	2
81-90	1
Total	29
Youngest	23
Oldest	81

In analyzing the reported cases, they may be divided easily into three groups according to whether or not the tumor in the cecum was recognized at the time of the primary operation for appendicitis.

In table 2 the cases are separated according to when the existence of a tumor in the cecum was recognized.

TABLE 2.—*Time of Diagnosis of Cecal Tumor.*

Time of Tumor Diagnosis	No. Patients	No. Procedures
At first operation	11	14
After first operation	16	43
At autopsy	2	4
Total	29	61

The total number of surgical procedures required for each group also are tabulated.

There were 11 patients diagnosed as having acute appendicitis who were recognized at the time of surgery as having a coexistent neoplasm in the cecum in addition to an acute inflammation of the appendix. A total of 14 operations were performed on these 11 patients.

The next group of 16 patients had a surgical procedure performed for acute appendicitis, and the underlying tumor which obstructed the appendix was not appreciated. Before it was all over, the 16 patients in this group were subjected to a total of 43 operations. The great morbidity resulting when the tumor is not recognized at the primary operation is apparent. In addition, there is a considerable delay before the tumor is finally excised, which further diminishes the long term survival rate.

There were 2 patients in whom the carcinoma was not found until autopsy; and these 2 patients had had 4 operations before that.

Among the whole series of 29 patients there was a total of 61 operations.

To return to the first group of 11 patients in which a carcinoma was recognized at the primary operation, table 3 lists the type of operations performed. One patient had an appendectomy only. The existence of a carcinoma in the cecum was established, but it was considered to be inoperable and nothing further was done. This patient died on the seventh postoperative day of pulmonary embolus. One patient had a removal of the appendix, biopsy of the cecum, and drainage of an appendiceal abscess. In due time, a resection of the right colon was carried out. In another case, an appendectomy and ileocolostomy were performed as the primary procedure, and the hemicolec-

TABLE 3.—*Procedures Done When Tumor Recognized at First Operation (11 Patients).*

Procedure	No.
Appendectomy	1
Appendectomy, abscess drainage, biopsy of cecum	1
Appendectomy, ileocolostomy	1
Mikulicz resection of cecum	1
Resection of right colon with anastomosis	10
Total	14

tomy was done at the second stage. In the patient on whom a Mikulicz resection of the cecum was performed primarily, a wider resection and anastomosis was subsequently done.

Seven of the patients had a resection of the right colon with anastomosis accomplished at the primary intervention. These 7 patients together with the 3 who had secondary resections constitute a total of 10 who had a hemicolectomy.

The second group of 16 patients, who received an acceptable procedure for acute appendicitis or its complications, but in whom the tumor of cecum was not recognized primarily, had 43 total operations. These are enumerated in table 4.

TABLE 4.—*Procedures Done When Tumor Recognized After First Operation (16 Patients).*

Abscess drainage	8
Appendectomy	4
Appendectomy, abscess drainage	4
Exploratory laparotomy	4
Laparotomy to close fistula	3
Ileocolostomy	2
Biopsy of abdominal wall	2
Abscess drainage, ileocolostomy	1
Abscess drainage	1
Exclusion entero-enterostomy (?)	1
Resection of right colon, anastomosis	10
Mikulicz resection of right colon	2
Colostomy closure	1
Total	43

It can be seen that 8 patients had drainage of appendiceal abscesses, 4 had appendectomies and 4 had appendectomies and drainage of an abscess. These were the primary procedures in the 16 cases. But these persons all continued to have symptoms which led to further therapeutic maneuvers. Four had secondary explorations at which time such diagnoses as "regional ileitis" or "granuloma of the cecum" were made. One patient, who had a secondary exploration, was found inoperable at the time.

Of this group of 16 patients, 13 developed fecal fistulas at some time following the primary surgery. In 3, another operation was done only in an attempt to close the fistula. Two patients had an ileocolostomy performed. In 1 of these the tumor was recognized and found nonresectable so that a palliative short circuit was established.

In 2 cases, the carcinoma spread out the fistula tract, and the diagnosis was made by taking a biopsy specimen from the abdomen. Another had a secondary drainage of an abscess and ileocolostomy. One patient had a secondary drainage of an abscess.

As the third operation in one man, an exclusion entero-enterostomy was performed. This case was in the foreign literature, and I am not clear on exactly what sort of enteric arrangement was fashioned. He subsequently had a resection at another hospital, and the case was reported from this institution.

Finally, after all of the above operations had been done, 10 patients had hemicolectomy with anastomosis. Two had Mikulicz resections, one of which required operative closure of the colostomy.

The 43 operations which were done on these patients amply reveal the morbidity resulting when the underlying tumor is overlooked.

To show the delay which resulted from the time these patients presented themselves with symptoms until the diagnosis was established and the cancer excised, it should be noted that the shortest period between the first operation and accurate diagnosis was two months, the longest ten months, and the average six months.

The third group, table 5, is comprised of 2 cases, both of which had drainage of an appendiceal abscess

TABLE 5.—*Procedures Done when Tumor Recognized at Autopsy (2 Patients).*

Drainage of abscess	2
Ileostomy	1
Drainage of Subphrenic abscess	1
Total	4

as the primary operation. One of these patients subsequently had an ileostomy and the other had a subphrenic abscess drained. They both died, and at autopsy it was found that a carcinoma of the cecum had caused an acute appendicitis with perforation and abscess formation.

From this brief analysis of the available cases, it can be seen that in the majority of instances the presence of two pathologic processes was not recognized. Therapeutic measures directed only toward the appendicitis were ineffectual, and a delay of months occurred before the true nature of affairs was established.

CASE REPORT

A 65 year old white male constable, who was first seen in consultation in the office on August 16, 1948, lived in a small country town. Five days previously he had had the onset of pain and tenderness in the right lower quadrant of the abdomen with anorexia, and later nausea with occasional emesis. His bowels generally moved daily without laxative, but he had had no movement for three days. There had been no weight loss. He had noted no melena.

Eight months previously the patient had had a coronary occlusion followed by a coronary insufficiency. This was verified at the time by communicating with his cardiologist. He had frequent attacks of anginal pain which were relieved with nitroglycerine or whiskey, more often the latter. One week before the present acute episode, swelling of the ankles developed, and his local physician treated him with digitalis.

In 1941 a cholecystectomy had been done for cholelithiasis.

Physical examination revealed a short obese man, 5 feet 3 inches tall and weighing 180 pounds. Temperature was 100.4 F. and the pulse rate was 84 per minute. The abdo-

men was rounded and obese with no palpable organs or masses. There was moderate to marked tenderness and rebound tenderness over McBurney's point. Mild rigidity was present over the right lower quadrant. Peristalsis was hypoactive. Rectal examination was normal.

The white blood cell count was 15,000 with 78 per cent polymorphonuclear cells. Urinalysis was within normal limits.

A diagnosis of acute appendicitis was made, and the patient was hospitalized. Because symptoms had been present for five days and the infection seemed localized, and because of the myocardial disease and obesity, it was elected to embark on a conservative program with frequent examination and reevaluation.

Consequently, the patient was given one million units of penicillin a day and a liquid diet. Digitalis was continued under the direction of the cardiologist. Red blood cell count was 4.65 million with 15 Gm. of hemoglobin. The sedimentation rate was 40 mm. per hour on the day following admission. The rest of the laboratory data, except the leukocyte count, were within normal limits.

The patient improved both subjectively and objectively with this regimen. Within five days the patient was afebrile and the tenderness and rigidity were minimal with no palpable mass. The white blood cell count was normal, and the patient was anxious to return home.

However, in conversations with the patient during his hospitalization, it was developed that he had had a similar mild attack of pain in the right lower quadrant one month previously. This suggested the possibility of there being something more than a simple appendicitis.

Because the patient was not the most cooperative and there was a question of how well he would follow instructions, it was decided to do an intravenous pyelogram and a barium enema study without catharsis before he was discharged.

The roentgen-ray studies were done August 23, and the barium enema showed a defect in the cecum. The roentgenologist stated, "The cecum is filled with a mass extending to the ileocecal junction." These films strongly suggested the probability that this was a neoplasm. However, it was impossible to state definitely that this picture was not caused by pericecal induration from an appendiceal abscess. The patient insisted on returning home, and he was allowed to do so with strict instructions to return in three weeks for another barium enema examination. He was told that an operation would be necessary if the defect in the cecum was still present.

He was dismissed from the hospital, asymptomatic, nine days after admission, and signed out as subacute appendicitis with possible carcinoma of the cecum.

Nothing further was heard from the patient until October 31, six weeks after his previous admission. He had had no further symptoms until twenty-four hours before, when he had a recurrence of pain and tenderness in the right lower quadrant of the abdomen. The findings were again compatible with a diagnosis of acute appendicitis; but in addition there was crampy abdominal pain, mild distention, and hyperperistalsis, which was indicative of some small bowel obstruction. He had continued on digitalis and other cardiotherapeutic agents since his last admission.

The patient was again admitted to the hospital. The red blood cell count was 4.98 million with 17 Gm. of hemoglobin. The white blood cell count was 16,000 with 70 per cent polymorphonuclear leukocytes. A flat film of the abdomen verified the presence of distended small bowel loops. Decompression was carried out with a Miller-Abbott tube. The patient was maintained on parenteral alimentation and received penicillin intramuscularly.

By the fourth day following admission, the bowel was decompressed and he was having stools per rectum. The electrolyte and metabolite blood studies were within normal range. The cardiologist agreed that his general condition was sufficiently stable to allow exploration. Bowel preparation was carried out by putting streptomycin through the Miller-Abbott tube, and he was given repeated saline enemas.

Six days following admission, exploration was carried out through a right midrectus muscle splitting incision. The appendix was exposed and found to be acutely inflamed. The cecum was mobilized from a lateral direction. It could then be ascertained definitely that a tumor was present in the cecum near the ileocecal valve. No metastases could be palpated in the liver. Consequently a right colon resection was carried out, removing terminal ileum, cecum, ascending colon, hepatic flexure, and the proximal one-third of the transverse colon. Bowel continuity was reestablished as an end-to-side ileo-transverse-colostomy over a three-bladed clamp and using continuous catgut as an inner layer and interrupted silk as the serosal suture.

Study of the specimen revealed a polypoid adenocarcinoma of the cecum grade 4, which was obstructing the lumen of the appendix and encroaching on the ileocecal valve. No metastatic lymph node involvement was found microscopically. An acute exudative appendicitis was present.

Postoperative convalescence was prolonged by a refractory period of hiccoughs which began on the fourth postoperative day. Oral nutrition and bowel function were established on schedule. The hiccoughs finally ceased, with no credit due to any specific therapy. The patient was dismissed to his home on the seventeenth postoperative day.

Six months following his operation, the patient was seen again on follow-up examination. He had no complaints referable to the gastrointestinal tract, and bowel function was normal. He continued to have anginal pain.

He remained in the city that evening; and on the same day I had reexamined him, the patient had another coronary occlusion with an extensive infarct. He was admitted to the hospital and two days later developed a right hemiplegia from a cerebral embolus. The patient died six days after his last admission. Permission for an autopsy was not obtained.

SUMMARY

It may be stated that an obstructive element is present in 50 per cent of cases of acute appendicitis. A carcinoma in the cecum is one of the less common causes of obstruction of the appendix; however, it is suggested that it occurs more frequently than may be judged from the number of reported cases. When the underlying tumor of the cecum is not recognized at the time of the primary operation for appendicitis, a prolonged, complicated course of events will have been originated. This sequence will not be terminated until six months later, on the average, when the carcinoma of the cecum will be recognized and resected if it is still operable at that time.

A case is presented in which acute appendicitis and carcinoma of the cecum were coexistent. Fortunately, the course of events allowed the diagnosis of a tumor in the cecum to be established preoperatively.

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ABSTRACT OF DISCUSSION

DR. JOHN C. LONG, Plainview: Dr. Thomas' paper has clearly brought into focus one of the most frequent repeated errors in the management of cancer of the cecum. Twenty-five per cent of patients with this disease are diagnosed as having appendicitis. Nearly all surgeons can remember several occasions when cancer of the cecum, presenting as acute appendicitis, was missed or almost missed; and there are few pitfalls in surgery which are so likely to trap us more than once.

The areas of the intestinal tract most often victimized by delay in the diagnosis of cancer are the stomach and the cecum. A recent study at the Barnes Cancer Hospital in St. Louis revealed that the lesion in 44 per cent of patients with cancer of the cecum was too far advanced for treatment in a curative manner when finally recognized. This figure is depressing enough. Yet Dr. Thomas has pointed out that 70 per cent of the group of patients diagnosed as having appendicitis did not have a curative surgical procedure.

The culpability for the delay in providing the patient with cancer of the cecum with proper treatment is different from the culpability in most cases. Drs. Leach and Robbins at the Memorial Hospital have pointed out that the patient himself is often responsible for the delay; however, in cancer of the cecum the responsibility usually rests squarely with the physician. Often these patients are thought to be too young to have cancer; yet 30 per cent of patients with cancer of the cecum are under 50 years of age, and almost 10 per cent are under 40 years of age.

In view of the proved reduction in the cure rate when definite surgery is not carried out promptly, it is to be hoped that Dr. Thomas' study will remain prominently in our minds each time we operate on a patient suspected of having appendicitis.

The coexistence of associated disease should not deter one from carrying out curative surgery. The heart disease in Dr. Thomas' patient did not prevent successful surgical therapy. Lord Monyihan sixty years ago advised that no patient should be permitted to die of one disease just because he happened to have another.

FEWER APPLICANTS FOR MEDICAL SCHOOLS

Continuing a three-year trend, the number of applicants to the nation's medical schools declined again this year, according to an official study of 1952-1953 applicants by John M. Stalnaker, director of studies for the Association of American Medical Colleges.

Results of the study show that some 3,150 fewer persons applied this year than in 1951-1952 and some 7,600 less than three years ago. Of 16,763 persons who applied last fall, 7,778 were accepted, stated the report in the February issue of the *Journal of Medical Education*.

Geographical distribution is uneven, with half the applicants from seven states. Therefore, while some states have a wealth of students to choose from, some lack qualified candidates.

Symposium for GP's in New York

The second annual tuberculosis symposium for general practitioners approved by the American Academy of General Practice for twenty-six hours of formal credit will be held July 13-17 in Saranac Lake, N. Y. Registration is limited to 100 physicians and the fee is $40 for A.A.G.P. members and $50 for nonmembers. Further information may be secured from Dr. Richard P. Bellaire, Tuberculosis Symposium for General Practitioners, Box 707, Saranac Lake, N. Y.

Reports on Stress Needed

Drs. Hans Selye and Alexander Horava, Montreal, co-authors of "Annual Reports on Stress," are in need of reprints of relevant papers on stress and the so-called adaptive hormones. Since research on stress is greatly aided by periodic surveys, the doctors ask that these reprints be sent as soon as they are available to the Institute of Experimental Medicine and Surgery, Montreal.

The publication is a series of reference volumes in which current world literature on the subject is surveyed annually.

Mass surveys of the chest are not intended to establish a final diagnosis but to focus attention on persons who show abnormal conditions in order that further study can reveal what the abnormality is and what should be done about it. —O. Merton Derryberry, M. D., J.A.M.A., Jan. 10, 1953.

DIAGNOSIS OF SPINAL CORD TUMOR

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AMONG the neoplasms amenable to surgical treatment, spinal cord tumors yield results superior to most, and the majority of patients with such lesions are restored to economic usefulness. With early diagnosis disability does not progress to severe paraplegia, and in most instances there is prompt neurologic recovery after operation. Although spinal cord tumors are not encountered frequently by the average practitioner, they produce such characteristic clinical findings that they may be recognized with considerable accuracy by the physician who keeps their possibility in mind.

The term spinal cord tumor is applied to that group of neoplasms arising in or adjacent to the spinal cord which come to compress the cord or cauda equina.[1, 3] The unyielding character of the bony spinal canal makes interruption of cord function inevitable regardless of the histologic character of the lesion. Spinal cord tumors include tumors involving the vertebrae, tumors arising in the spinal epidural space, and tumors arising from or within the dura. As these lesions involve the spinal segments with approximately equal frequency, the greatest number occur in the thoracic region as it is the longest portion of the spinal column. Although most common in middle age, spinal cord tumors are encountered at all ages and are equally frequent in both sexes. Spinal cord tumors occur approximately one-sixth as frequently as brain tumors. A small number of patients have been reported who have had 2 or more spinal cord tumors; rarely have they existed at the same time. During the period from 1939 to 1951 inclusive 52 spinal cord tumors were treated on the neurosurgical service at John Sealy Hospital. During that period a considerable additional number of patients with inflammatory lesions compressing the cord were encountered. There were 3 primary bone tumors, 7 epidural tumors, and 42 intradural tumors.

PATHOLOGY

Although histologically spinal cord tumors constitute a heterogeneous group, the majority of these are benign tumors which do not recur when completely removed grossly. When the tumor cannot be completely removed, a long period of improvement may follow partial removal. When the neoplasm is one of bone and is obviously malignant, operation is rarely indicated. I have observed an additional number of patients with malignant bony lesions not submitted to operation and not included in this series. Lesions in the epidural space, although a small group numerically, constitute a great variety of lesions of both primary and metastatic character. The intradural group is subdivided into an extramedullary group in which the lesion arises outside the spinal cord and into an intramedullary group in which the lesion arises within the substance of the cord. The majority of intradural extramedullary tumors are benign, arise from either the arachnoid, dura, or nerve roots and usually may be completely removed. Meningiomas and neurofibromas occur with approximately equal frequency. Intramedullary tumors are predominantly slowly growing, well differentiated gliomas which usually involve several segments of the spinal cord. Only rarely are these lesions clearly demarcated from the spinal cord at all points, and their complete removal without production of severe permanent cord damage is uncommon.

SYMPTOMATOLOGY

By their growth spinal cord tumors produce a single focal, progressive, neurologic disturbance. Local pain at the site of the lesion is usually not a prominent feature. Although there is considerable variability, in part depending upon the rate of growth of the tumor and its anatomic relationship to the spinal cord and membranes, the symptoms usually may be recognized as occurring in two phases.

The first or irritative phase is produced by compression of the posterior roots or the spinal nerves and is characterized by pain. This pain is usually of a severe, aching character often accompanied by sharper, severe pain. This pain is intermittent, becomes more frequent and severe with the passage of time, and is often disturbing at night. The patient usually observes that the pain is brought on or aggravated by coughing, straining, or sneezing. The most important characteristic of the pain, however, is its occurrence in an area corresponding to the distribution of one of the body segments. The pain, at first, may occupy only a portion of the segment, but usually when it becomes more severe, the segmental character of its distribution may be readily recognized. With a tumor in the cervical region the pain may be experienced in the back of the head or neck, but is most commonly in the upper extremity. Thoracic

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tumors produce pain radiating about the chest or abdomen. Tumors in the lumbar region produce pain in the lower extremity, buttocks, or perineum. Often recognition of the segmental character of the pain is long delayed, and in some patients the pain leads to operation for presumed diseases of the thoracic or abdominal viscera. Typical segmental pain is most commonly experienced in patients with intradural extramedullary lesions, and occasionally it may persist for long periods before other evidence of the tumor appears. Intramedullary tumors often produce no pain or other irritative symptoms. Absence of pain is no assurance that the lesion is intramedullary as occasionally pain is absent in extramedullary tumors.

After a variable period, the length of which depends chiefly upon the rate of growth of the tumor, symptoms caused by cord compression appear. The first indication of cord compression is usually a slowly developing, gradually progressive, motor weakness most apparent in the distal portion of the extremity upon the side of the lesion. With cervical tumors the weakness usually involves the ipsilateral upper extremity before the lower. Shortly after ipsilateral weakness appears, weakness involving the opposite side of the body appears. If treatment is long delayed, there is complete voluntary paralysis of the muscles below the lesion. Impairment of sphincter control occurs and retention of urine is the rule. Difficulty in control of the bladder is a late symptom and is rarely seen before weakness of the skeletal muscles is pronounced.

TABLE 1.—*Incidence of Sex, Race, Site, and Age in 52 Spinal Cord Tumors Observed from 1939 to 1951 Inclusive.*

Sex Incidence:		Age Incidence:	
Male	32	(Yr.)	
Female	20	10-19	8
Race Incidence:		20-29	7
White	42	30-39	4
Negro	10	40-49	14
Region Involved:		50-59	9
Cervical	7	60-69	7
Thoracic	38	70 plus	3
Lumbar	7		

Somewhat later in onset than motor weakness, loss of sensation appears. The sensory disturbance is usually slight at first, and the patient is often uncertain as to when it began and confused as to which extremity was first involved. If the cord compression is not relieved, progression of sensory loss to complete anesthesia below the lesion occurs. Complete sensory loss is a more serious prognostic sign than the loss of voluntary motor power.

EXAMINATION

As it should be in all patients, a complete general physical examination must be made in patients suspected of spinal cord tumor. Frequently unsuspected disorders which produce cord compression as the only symptom of their presence are detected. Perhaps the most common of these is carcinoma of the prostate gland. Although limitation of motion in the spine is rather infrequent, often firm pressure or heavy percussion over the affected portion of the spine will produce some local pain. The neurologic examination of patients suspected of spinal cord tumor is relatively simple. In addition to the usual tests of cranial nerve function, determination of the motor power, sensation, and reflex status is made. Muscles with diminished motor power are identified and their muscle tone is determined. Except in patients in whom the paralysis has come on with unusual rapidity or in whom the tumor compresses the cauda equina, the muscle tone is increased and the involved extremities are spastic. Involuntary movements of a reflex character, arising in spinal segments below the level of compression now freed from the inhibition of higher centers, may be present. These movements often occur when the extremity is manipulated or otherwise stimulated. It is important to recognize these movements as evidence of far advanced impairment of cord function rather than evidence of persisting or returning motor power.

TABLE 2.—*Pathology of 52 Spinal Cord Tumors.*

Primary bone tumors	3	Intradural tumors	42
Myeloma	2	Intradural extramedullary	
Osteoid osteoma	1	tumors	26
Tumors of epidural space	7	Meningioma	10
Carcinoma	4	Neurofibroma	14
Fibrosarcoma	1	Ependymoma	2
Hemangioma	1	Intradural intermedullary	
Cyst	1	tumors	16
		Ependymoma	14
		Astrocytoma	1
		Lipoma	1

Careful sensory examination is of greatest importance in patients suspected of spinal cord tumor. The examination of cutaneous sensation to touch, pain, and heat and cold usually shows a greater abnormality than does deep sensation. The demonstration of a diminution in sensation is of as much significance as a complete loss. In most patients a careful examination will demonstrate a definite level below which sensation is diminished. The lowest level of normal sensation indicates the level of normally functioning cord above the tumor. It is unusual to find a patient with motor changes caused by cord compression without a readily demonstrable sensory loss. As a rule the sensory disturbance is less marked in patients with intramedullary lesions.

With spinal cord compression the deep reflexes are increased and the superficial reflexes diminished. Sustained clonus appears, and an extensor plantar response, or Babinski sign, replaces the normal flexor response. When the cauda equina is compressed, the

deep reflexes are diminished or absent as are also the plantar responses.

In most patients with intradural extramedullary tumors, cord compression is at first clinically limited to the side of the lesion. This produces a neurologic picture which resembles that in a hemisection of the cord, the so-called Brown-Sequard syndrome, with ipsilateral motor weakness and increased reflexes and contralateral diminution of cutaneous sensation. In the absence of direct trauma to the cord the presence of such findings should always lead to complete studies to eliminate the possibility of spinal cord tumor.

LABORATORY STUDIES

When the diagnosis of spinal cord tumor is suspected, there are available laboratory studies which will confirm or disprove this diagnosis with great accuracy. Roentgenograms of the suspected portion of the spinal column should be made. These will suffice in most instances to show the presence of primary or metastatic bony lesions. Approximately one-third of the tumors lying within the spinal canal may be accurately localized by noting bony erosion of the pedicle or pedicles at that level or by showing an increase in the interpediculate[2] measurements at the level of the tumor. In rare instances calcification in the tumor itself may be demonstrated.

Lumbar puncture is of great value in the study of patients suspected of spinal cord tumor and always should be made. In patients with a tumor compressing the cauda equina, it may be difficult to obtain spinal fluid as the tumor may fill the spinal canal completely. Under such circumstances puncture may be necessary at several different interspaces before fluid is obtained. Gradually increasing localized cord compression comes to divide the spinal subarachnoid space into compartments above and below the level of compression. Fluid within the two compartments communicates with increasing difficulty, and finally communication becomes impossible. When communication is no longer possible, this may be shown by a study of the spinal fluid dynamics, the so-called Queckenstedt test. Lumbar puncture is performed at a level where the needle enters the subarachnoid space below the suspected obstruction. The initial pressure of the spinal fluid is taken, preferably with a water manometer as the excursion of the column of fluid is much greater with this type of apparatus than with a mercury manometer. Bilateral jugular compression is then made. If the test is explained to the patient, jugular compression may usually be accomplished without the patient straining or carrying out other activities which will vitiate the results obtained; when the patient strains, there is a prompt rise in the spinal fluid pressure even in the presence of a complete block.

Jugular compression is best made by placing a sphygmomanometer cuff about the neck and inflating it for ten second periods with gradually increasing pressures. Pressures of 10, 20, and 40 mm. of mercury are usually employed although most patients readily tolerate much higher pressures if necessary. A normal response consists of prompt rise of the spinal fluid pressure when jugular compression is made and a prompt fall upon its release. Usually 10 mm. of pressure will suffice to produce an elevation of considerable magnitude and the spinal fluid pressure will return to its initial level within ten to fifteen seconds after release of compression. When there is no increase in spinal fluid pressure upon strong jugular compression, a complete block exists. A partial block is of equal significance. In a partial block, the fluid pressure may rise slowly or irregularly during compression, but more characteristic is the fact that when the compression is released, there is a slow or irregular fall and, in many instances, the pressure may fail to return to the initial level even after a minute or two. Since a normal response to Queckenstedt's test persists as long as a passage through the subarachnoid space exists equal in cross section to that of the lumen of the needle used for lumbar puncture,[4] it is readily apparent that changes in the spinal fluid dynamics are a late sign of tumor.

In the presence of spinal cord tumor, the protein content of the spinal fluid is usually quantitatively increased. When a complete block exists, the protein content is higher than when block is absent. The higher the level of a tumor not producing block, the lower the protein level is likely to be. In some instances the fluid may contain so much protein that it coagulates on standing. The protein content of the fluid tends to be higher with neurofibromas than with other types of tumor. The cell count of the spinal fluid is usually normal. In many instances the spinal fluid is xanthochromic, especially when block exists. Slight degrees of xanthrochromia may be overlooked unless the fluid is compared with water.

Myelography, the introduction of opaque contrast media into the spinal canal for roentgen-ray study, was introduced in 1922.[5] Although no completely satisfactory contrast medium has been developed for this purpose, myelography plays an important part in the diagnosis of space-occupying lesions of the spinal canal. When complete block exists, air or other gas may be introduced into the spinal canal and roentgenograms made with the patient in an upright position. Such films will demonstrate the lower limit of the obstruction.

At the present time the material most commonly used for myelography is Pantopaque, an iodine-containing organic compound heavier than spinal fluid and not miscible with fluid. Lumbar puncture is made in the usual fashion, Pantopaque introduced into the subarachnoid space, and examination by fluoroscopy done. Spot films are made to confirm the fluoroscopic findings. After the examination is completed the Pantopaque is aspirated; usually the needle is left in place throughout the examination so that a second puncture is not necessary. Pantopaque not aspirated will be absorbed, although months or years are required for its complete removal.

Myelography shows the level of the lesion clearly. The appearance of the filling defect produced in the opaque column is usually of considerable interest as one may predict with considerable accuracy whether the tumor is extradural, intradural, extramedullary, or intramedullary. Although it is possible to diagnose and localize most spinal cord tumors without myelography, I have encountered some tumors not demonstrable at the time by other means.

DIFFERENTIAL DIAGNOSIS

Herniated intervertebral disk with nerve root compression may closely mimic spinal cord tumor; however, the former condition usually comes on more abruptly and is more likely to be associated with exacerbations and remissions. Physical activity usually increases the pain and rest lessens it. Limitation of motion in the spine is usually present and gait disturbance is common. A history of significant injury is obtained in about half these patients. Motor disturbances are not usually prominent with disk lesions. In some patients certain differentiation is not possible without myelography.

Multiple sclerosis usually demonstrates a tendency to exacerbations and remissions. Usually involvement of other portions of the nervous system in addition to the spinal cord may be demonstrated. Pain is absent. The sensory disturbance present is predominantly one of deep sensation. The dynamics of the spinal fluid are normal.

Syringomyelia in a young adult patient showing a lesion in the cervical enlargement with dissociation of sensation and little or no progression should produce no confusion with spinal cord tumor. Pain is absent. At times myelography may be required to differentiate between syringomyelia and intramedullary tumor.

Subacute combined degeneration of the cord is not associated with pain. The disturbance of sensation is one involving principally deep sensation, and the disturbances of cutaneous sensation usually show a stocking and glove distribution. Reflexes are variable but are often diminished; Babinski response may or may not be present. Diagnosis is apparent upon careful studies of the blood and upon examination of the gastric secretion.

Lateral sclerosis, progressive muscular atrophy, and amyotrophic lateral sclerosis are not associated with pain and there is no sensory disturbance present. Atrophy and fibrillation of small muscles of the hand serve to make diagnosis clear in the latter.

Arthritis, although apparently not infrequently diagnosed in patients with cord tumor, should give no difficulty on account of the absence of neurologic findings in arthritis.

TREATMENT

Laminectomy is the only treatment of value available for spinal cord tumor. Operation is well tolerated even by extensively paralyzed, debilitated patients. The usual cause of death after operation is a progression of sepsis due to urinary tract infection or decubitus ulcers, both of which are complications of neglected cord compression.

Three deaths occurred in my series after operation. The results of treatment, while variable, with bony and extradural tumors were rather unsatisfactory, although 4 of these patients may be regarded as cured. The results with intramedullary tumors were poor and none of these patients may be considered cured. The majority of these patients were unable to return to physical work although some conspicuous exceptions occurred. The majority of patients with intradural extramedullary lesions are presumably cured, and most of them have had a complete relief of pain and neurologic disability. The exceptions have chiefly been in elderly patients where operation had been long delayed.

SUMMARY

The diagnosis of spinal cord tumor may be made with great accuracy. The results of treatment, although variable, depending upon the location and histologic character of the tumor are, in general, good.

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Lactating Adenoma of Breast

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WE have recently had an opportunity to study 6 examples of an uncommon type of breast tumor which, in terms of patient history, clinical observation, and histologic character, are so similar that a rather definite pattern emerges. This pattern is so well defined that it should be possible to include this lesion in the list of preoperative differential diagnoses in most cases and make the correct clinical diagnosis in many. We are not entirely sure that the lesion in question is a great rarity, but discussions in the literature are not numerous, and we are impressed with the fact that accurate preoperative diagnosis has not been made in the cases which we have studied. In fact, it should be noted that the lesion herein considered is not usually included in the list of differential possibilities. The preoperative diagnosis is most often carcinoma. Since this lesion occurs always in lactating or prelactating young women and since pregnancy and lactation are especially unfavorable factors in the prognosis of carcinoma of breast, both patient and physician may be unduly alarmed.

CLINICAL HISTORY

The typical clinical history is that of a firm or definitely hard nodule in some portion of the breast which appears usually during the latter phases of gestation or immediately postpartum and which shows variable growth rate. Patients' ages have been 34, 25, 21, 20, 21, and 25 years. Of 4 cases in which the tumor appeared for the first time during the current pregnancy, the earliest was observed during the fifth month and the latest on the fifth postpartum day. The remaining 2 appeared in previous pregnancies and were examined the seventh and ninth month respectively. All of the patients in this study had had previous pregnancies. Growth may be rapid or comparatively slow. Five of the 6 patients in this series had tumors in the inner aspect of the breast as compared with the upper-outer quadrant, which is the most frequent location for carcinoma as mentioned by Haagenson and Stout.[7] Some of the nodules appear to be fixed to deeper structures and are thus even more alarming. The nodules here varied from 2.5 cm. to 7 cm. in greatest diameter. In 1 patient 3 similar tumors were present, 1 in one breast and 2 in the opposite breast. This latter case is the only one of this series with multiple tumors. The preoperative diagnosis was multiple fibroadenoma. Two patients stated that the nodules had appeared during previous pregnancies and had persisted without change until the operation, which was done in the early lactation period. In view of the activity of the glands seen in microscopic section, it is surprising that no change in size had occurred.

PATHOLOGIC CHARACTERISTICS

Study of all of the tumors by frozen section disclosed the correct diagnosis. Treatment consisted of local excision in all of our cases.

The tumors are uniform in gross and microscopic appearance, which may be summarized as follows:

Gross examination reveals a firm, well defined, and sometimes lobulated mass which gives the impression of being well circumscribed but not sharply encapsulated. The nodule is obviously cellular and often has the general consistency and gross appearance of pancreas. This impression is made even more marked by small fibrous septums which upon close inspection give the surface a lobulated structure. It must be emphasized that the nodules are clinically and pathologically well defined tumors which are clearly set out from the surrounding breast tissue.

Microscopically the appearance is similar to that of usual lactating or prelactating breast tissue. Some variations seem to be frequent, however, in that most of the cases show a slight tendency to dilatation of the acinar elements, and the impression is gained of a less well developed tubular system than in the usual lactating breast. The amount of pink-staining secretion in acini and tubules varies considerably, but it is generally less than that seen in normal breast at a comparable stage of activity. The acinar lining cells usually contain secretory globules. Well developed fat globules and colostrum bodies are scarce, however. The connective tissue strands separating the lobules seem less well developed than in normal lactating or prelactating breast.

One of the cases in this series is of special interest in that almost the entire tumor showed coagulative necrosis, probably due to infarction. This tumor appeared during the seventh month of pregnancy and grew rapidly until its removal on the ninth postpartum day.

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Read before the Section on Clinical Pathology, Texas Medical Association, Annual Session, Dallas, May 7, 1953.

DISCUSSION

There are numerous reports in the literature of various types of tumors which occur during pregnancy and lactation, and it is well known that the component elements of many tumors may respond to the hormonal influences which alter the normal breast structure. Many studies indicate that fibroadenomas of the usual variety often enlarge and show histologic changes during pregnancy and lactation. According to Moran,[10] the changes which occur in fibroadenomas during pregnancy and lactation correspond to those seen in surrounding breast, and marked proliferation of epithelial elements may obscure the identity of the tumor in some areas. Geschickter and Lewis[6] emphasized the changes which often occur in fibroadenomas under the hormonal influence of pregnancy and lactation and confirmed that rapid changes occurring with increase in size often cause suspicion of malignancy.

There is little in the standard textbooks or in the usual periodicals regarding the existence of adenomas of the breast and few comments regarding the adenoma as it may be modified by the hormonal effects of pregnancy and the changes incident to lactation. The simple adenoma was mentioned by Moore,[9] and Cheatle and Cutler[5] spoke of the rare occurrence of simple adenoma and changes which may occur with lactation. In one series[1] simple adenoma was said to have an incidence of 1 in 10,000 in 103,685 admissions to an obstetric and gynecologic hospital over a twenty year period. Bothe[4] also commented on the rarity of this tumor inasmuch as he had located only 2 cases in ten years in a large surgical service. It appears clear, therefore, that this must be a rather uncommon lesion.

There are several questions regarding this type of tumor which are by no means finally settled. These tumors as they become evident during gestation and lactation may be derived from a preexisting pure "adenoma." This is not a completely satisfactory concept because of the rare occurrence of simple adenoma. It should be emphasized again that we are not concerned in this discussion with the changes occurring in fibroadenomas. There appears to be some confusion in the literature in this matter as some authors have apparently not made a sharp distinction between the rare pure adenoma influenced by lactation and the fibroadenomas. In 1 case,[4] which may fall in the category of pure lactating adenoma, it was noted that a nodule had been present in the breast prior to pregnancy and that significant growth had occurred mostly after lactation, although some growth was observed during gestation. The presence of a nodule before gestation certainly suggests a preexisting adenoma or at least a lobule of breast tissue which could be detected on palpation.

Since lactating adenomas are apparently more common than simple adenomas, the concept that they may arise in essentially normal breast is perhaps justified. Small lobules of breast tissue which do not have the normal connections with the rest of the duct system of the breast may exist, and these may then

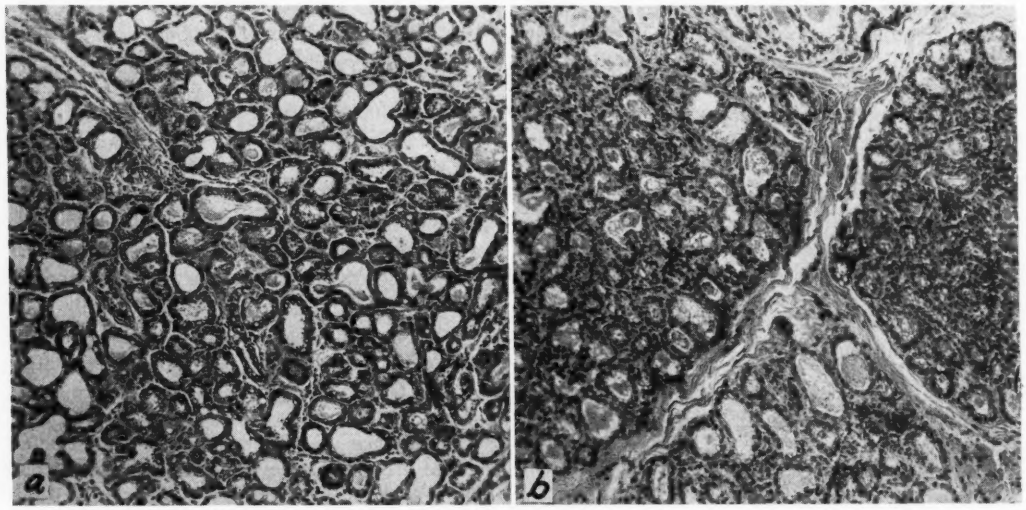

FIG. 1a. Photomicrograph of a "lactating adenoma" (x 105). The patient was aged 25, para 2. The tumor had been observed about two weeks prior to delivery and had grown rapidly. The mass was resected on the first postpartum day from the upper medial quadrant of the breast and had attained a size of 7 by 5.3 by 4 cm.

b. Section of normal breast at full term for comparison with figure 1a (x 105).

develop as apparently isolated tumors during the growth of all the breast tissue with lactation. Bothe[4] apparently was of the opinion that no duct communication with the rest of the gland exists and suggested that tumor increase with secretion might well result in pain. In this series we have no evidence which would suggest whether or not the tumors maintain any duct communication with the rest of the gland, and pain was not a notable feature in any patient. If one assumes, however, that these lesions are true neoplasms, it would be unlikely that duct connection would exist. Curiously enough, some of the patients had had previous pregnancies without noting any masses and had developed a rapidly growing lactating adenoma during the last stages of a subsequent pregnancy or early lactation period.

We are not at all sure that these tumors are true neoplasms, and we are inclined to doubt that the occurrence of this lesion, which seems best described by the term lactating adenoma, is often preceded by a simple adenoma. The lactating adenoma is most likely the result of hyperplasia of ducts and acini in a small aberrant or detached mass of breast tissue which either has never had a communication with the main duct system or has lost it through some earlier pathologic process, possibly in connection with previous lactation. It must be admitted that the lesion herein considered might well come about through either mechanism, but it seems certain that the development from preexisting simple adenomas must be uncommon.

PROCEDURE

In the discovery of a breast mass during gestation and especially in the stage of lactation, the same principle applies as at other times. Early operation to establish exact diagnosis is required, and neither pregnancy nor lactation appears to be any contraindication to diagnostic or definitive surgery. Of course, one should anticipate possible temporary leakage of milk which may follow surgical exploration during lactation. It is impossible to make absolutely reliable differentiation between lactating adenomas and other tumors prior to operation, and it is likely that the preoperative diagnosis will often be carcinoma. However, more widespread knowledge of this lesion is necessary, and lactating adenoma should be considered more frequently in differential diagnosis where the suggestive pattern is present. No one should rely solely on clinical diagnosis of any breast tumor, however, and we subscribe to the view of Bloodgood that nearly all single tumors of breast should be explored.[2] It should always be kept in mind that a significant number of cases of malignancy do occur in connection with pregnancy and lactation.[8]

A word of warning to pathologists as well as to surgeons is indicated as there is no general awareness of the lesion, and frozen section diagnosis may be in error unless the possibility of lactating adenoma is considered.[3]

SUMMARY

Six patients with breast nodules occurring during gestation and early phases of lactation are described. The tumor is often mistaken for carcinoma, and lactating adenoma is seldom considered among the differential possibilities. It is the purpose of this paper to increase awareness of this tumor. We believe that any tumor of breast should be explored immediately. Both surgeon and pathologist should be alert for the occurrence of lactating adenoma, which is rare, but probably not as rare as a survey of the available literature would indicate.

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ABSTRACT OF DISCUSSION

DR. LLOYD R. HERSHBERGER, San Angelo: This paper is of real value to both the pathologist and surgeon in that it again calls attention to this particular lesion of the breast. I am sure that all pathologists who carry the burden of frozen section diagnostic work and have experienced the pressure of rapid tissue diagnosis appreciate having this entity refreshed in their minds.

I was also interested concerning the true nature of this lesion. The concept of a small aberrant or detached mass of breast tissue undergoing hyperplasia is a worth-while contribution. This is particularly true since previous authors have debated the question as to whether these lesions arose from preexisting adenomas or whether the preexisting lesion was merely a fibroadenoma. There are authors who believe that a fibroadenoma may show all these changes during late pregnancy. I was interested to note that the present authors made mention of the connective tissue strands and thought they were even less well developed than normal lactating breast. This observation certainly makes it difficult to consider a fibrous tumor as the parent lesion for a lactating adenoma.

The consideration of this tumor as aberrant or as detached breast tissue without communication with the duct system of the breast also helps explain the so-called residual lactation hypertrophy in cystadenomas of the breast.

I would like to have the comments of Dr. Gill on nomenclature in this tumor. Is it wise to have physiology included in the anatomic diagnosis of a lesion? I am referring to the word "lactating" as an adjective for this tumor. Would the term "adenoma of pregnancy in the breast" serve equally well and thus relate it to other tumors peculiar to pregnancy such as the "tumor of pregnancy in the gum"?

DR. A. C. BRODERS, SR., Temple: After listening to the excellent paper by Drs. Gill, Stirman, and Gordon, I am reminded of some "trick" sections from a lactating breast that were submitted for examination along with sections from the thyroid gland at one of Dr. Joseph Colt Bloodgood's instructive conferences held at Johns Hopkins Hospital about twenty-five years ago. To the best of my memory the large majority of the more or less fifty examiners present at that meeting failed to recognize the correct anatomic site, let alone the true nature of these sections. Whether they represented normal lactating tissue from the breast or a condition comparable to that described in the present paper, I am at this time unable to say. In 1906 von Hansemann in an article concerning the function of tumor cells called attention to the production of milk in an adenoma of the breast during lactation. The presence of lobules with ducts plus a relative increase in the number of glands should lend support to the contention that the lesion is more a lactating adenosis than a lactating adenoma. In view of the fact that the process is likely to be mistaken for cancer, both clinically and from a gross pathologic standpoint, the paper by Drs. Gill, Stirman, and Gordon should be of interest to clinicians, surgeons, and pathologists.

Malignant Neoplasia of Normally Situated and Heterotopic Lymphoid Tissue and Its Numerical Microscopic Grading

A. C. BRODERS, SR., M.D., Temple, Texas

THIS presentation is limited to primary malignant neoplasia of normally situated and heterotopic lymphoid tissue. It is well known that the great majority of primary neoplasms of lymphoid tissue arise in that which is normally situated, especially the lymph nodes. A small minority, however, arise in lymphoid tissue of such organs as the stomach, the thyroid gland, and the salivary and lachrymal glands, in which it is not supposed to be found normally at birth. It may be probable that the presence of lymphoid tissue in certain organs of the adult in which it is not supposed to exist at birth is due to chronic inflammation. A. S. Warthin,[21] however, considered that the presence throughout the thyroid gland of hyperplastic primitive lymph nodes with germinal centers determined the existence of what he called a "Graves' constitution" and that evidence of this constitution might be recognized in the thyroid glands of very young children.

Lymphoid tissue containing secondary nodules or germ centers is not only commonly found in exophthalmic goiter (Graves' disease), which in reality should be called Parry's disease since it was described by Caleb Hillier Parry, an English physician, in 1786, forty-nine years before Graves, but is also frequently found in Hashimoto thyroiditis and may occur in Riedel's struma. Despite the fact that lymphoid tissue is often present in the thyroid gland, it rarely shows a tendency to undergo a malignant transformation. The presence of lymphoid tissue in the salivary and lachrymal glands is by no means rare and is likely to be most marked in cases of Mikulicz' disease. Although Mikulicz' disease is thought to be usually a benign process, at times it shows a tendency to develop into a lymphosarcoma of a low grade of malignancy and on rare occasions may be associated with lymphosarcoma elsewhere. Lymphoid tissue is frequently observed in the adult stomach; however, it rarely gives rise to malignant neoplasia, as attested by the fact that about 99 per cent of malignant neoplasms of the stomach are carcinoma, with lymphosarcoma making up the major part of the remaining 1 per cent.

It is reasonable to assume that the amount of normally situated lymphoid tissue of lymph nodes, for example, exceeds to a considerable extent the amount of variously situated heterotopic lymphoid tissue. However, primary malignant neoplasia is relatively rare in heterotopic lymphoid tissue, which tissue is evidently, for the most part, developed postnatally, whereas primary malignant neoplasia of normally situated lymphoid tissue of lymph nodes, which tissue evidently, for the most part, is developed prenatally, is relatively far more frequent in occurrence. It seems reasonable, therefore, to assume that the tendency of lymphoid tissue eventually to undergo a malignant neoplastic transformation is, to a large extent, predetermined at birth.

So much has been written on primary malignant

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neoplasia of lymphoid tissue that one is likely to gain the impression that it is practically impossible to add anything worth while. Regardless of whether one can or cannot add something of value to the foregoing subject, there is one thing upon which the majority will agree, and that is that, if one reads the voluminous literature with its not infrequent misuse of terms and diversity of opinion, one is likely to become confused and hence unable to gain a true perspective of the subject as a whole. In the first place, in order to clarify the subject and put it on an understandable basis, it becomes necessary to separate the wheat from the chaff. It should be clearly understood, therefore, that the attributes of primary malignant neoplasms of lymphoid tissue should be judged by the malignant cells that enter into the neoplasms and not by a non-neoplastic process that may be associated with the neoplasms, such as inflammation with or without fibrosis or a so-called granuloma (tuberculosis, for example). In other words, a malignant neoplasm should never be placed in the category of an inflammatory process or a so-called granuloma. I have in mind especially the term "Hodgkin's granuloma."

The scope of this presentation does not permit a detailed discussion of the pros and cons with respect to the origin of the malignant cells in a given primary malignant neoplasm of lymphoid tissue, as this aspect of the subject has been thoroughly covered by a number of investigators. If, however, one wishes to observe early malignant neoplastic changes in lymphoid tissue, the secondary nodules or germ centers of Flemming,[5] which he described in 1885, offer an unexcelled opportunity. Quite often one can see malig-

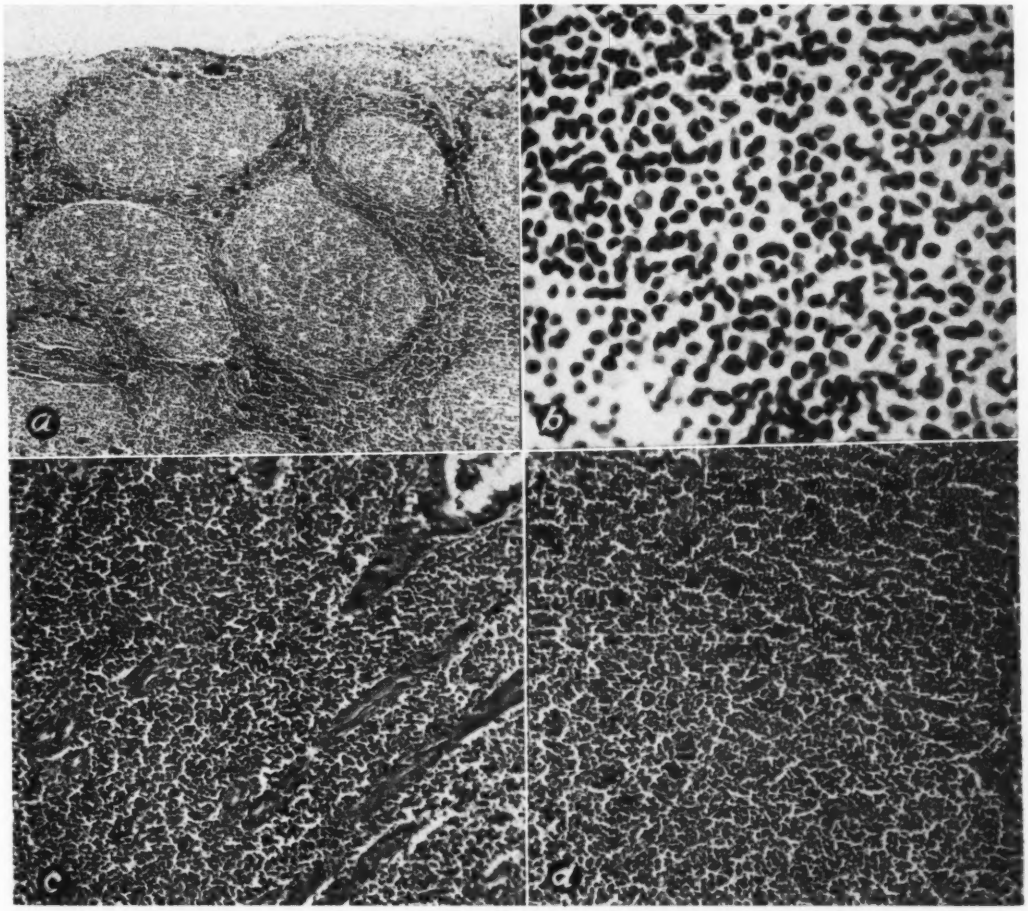

FIG. 1a. Grade 1 giant follicular sarcoma of a lymph node (Brill-Symmer's disease). x 54.
b. Grade 2 lymphocytic sarcoma of a lymph node. x 500.
c. Grade 2 lymphocytic sarcoma of stomach. x 110.
d. Same case as *c*, showing metastatic sarcoma, lower part of picture, in lymph node near stomach. x 110.

nant neoplasia in situ in the germ centers of Flemming just as one can see carcinoma in situ in epithelium. Furthermore, it is practically without exception multicentric; that is, more than one germ center is involved.

The foregoing process was well illustrated in 1925 by Brill, Baehr, and Rosenthal[3] when they described a condition in the germ centers of Flemming which they called "generalized giant lymph follicle hyperplasia of lymph nodes and spleen," which they considered apparently benign. Baehr,[2] in 1932, however, reported a similar, but malignant, variant. In 1927 Symmers[18] reported what he called follicular lymphadenopathy with splenomegaly, and in 1938 Symmers[19] reported a condition which he called giant follicular lymphadenopathy with or without splenomegaly with transformation into polymorphous-cell sarcoma of the lymph follicles and its association with Hodgkin's disease and lymphatic leukemia, an apparently unique disease of the lymph nodes and spleen. Today, the neoplastic processes of lymphoid tissue described in 1925 by Brill, Baehr, and Rosenthal and, a little later, by Symmers are usually designated as follicular lymphoblastoma, follicular lymphosarcoma, or Brill-Symmers' disease.

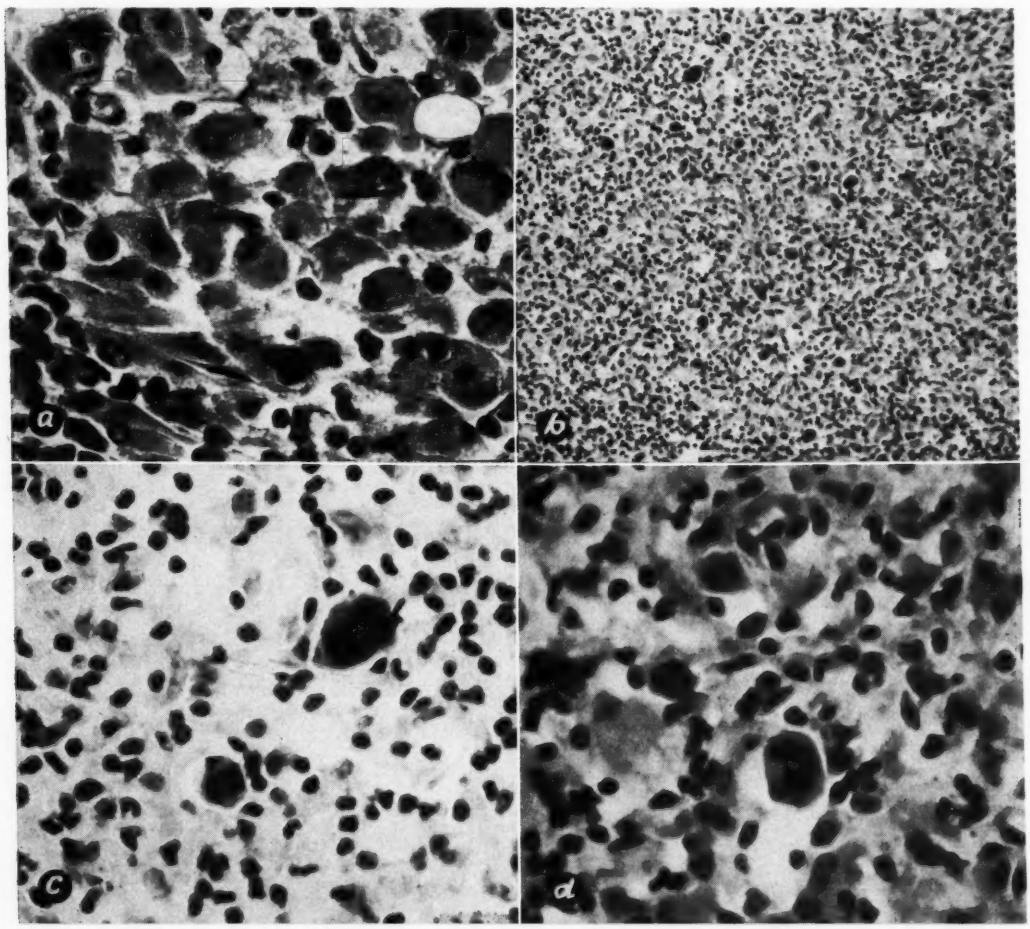

FIG. 2a. Grade 3 clasmatocytic (reticulum cell) sarcoma of a lymph node. x 500.

b. Grade 4 Hodgkin's sarcoma of a lymph node showing scattered variously-sized malignant cells and a marked inflammatory reaction. x 150.

c. Same case as *b*, showing two giant tumor cells with double or so-called mirror-image nuclei. x 500.

d. Same case as *b* and *c*, showing giant tumor cells and one pathologic mitotic figure below center. x 500.

Of the various pathologic processes that arise in the lymphoid tissue, the 7 cases described by Thomas Hodgkin[8] in 1832 entitled "On Some Morbid Appearances of the Absorbent Glands and Spleen" probably have been more widely discussed with respect to

their neoplastic or non-neoplastic nature than any others. In 1856, Wilks[23] reported 10 cases of a disease peculiar to the lymph nodes and spleen which he likened to those originally described by Hodgkin. In 1865 Wilks[24] added 5 more cases and at that time designated all of them "Hodgkin's disease"; hence the term as used today. The pathologic process, or perhaps more appropriately the clinical syndrome, to which Hodgkin first called attention has also gone under such designation as Hodgkin's sarcoma, Hodgkin's granuloma, scirrhous lymphoblastoma, and fibromyeloid medullary reticulosis. The disease that bears the name of Hodgkin should never be designated a granuloma for the simple reason that granuloma does not connote a malignant neoplasm. To do so would be about as unreasonable as to call a carcinoma in a lymph node that is intimately associated with tuberculosis a granuloma. The term "Hodgkin's disease" should not be used unless in the opinion of the pathologist the lesion contains malignant neoplastic cells of nonepithelial mesoblastic ancestry or, in other words, sarcomatous cells. As is well known, the malignant cells of Hodgkin's disease vary in number from case to case and even in different parts of the same lesion, being sparse in some cases, moderate in others, and numerous in still others. The malignant cells also vary in size, form, and staining qualities.

Aside from the chronic inflammation with or without fibrosis usually associated with Hodgkin's disease and not infrequently accompanied by so-called granulomatosis, the presence of multinucleated malignant giant cells similar to tumor giant cells in various other malignant neoplasms is, for the most part, thought to be pathognomonic of the disease. These giant cells are variously called Sternberg cells, Reed cells, Sternberg-Reed cells, and Reed-Sternberg cells. However, they were well described by W. S. Greenfield[7] in 1878, twenty years prior to their description by Sternberg[16] in 1898 and twenty-four years prior to their description by Reed[14] in 1902. According to Willis,[25] they were also described by Andrews[1] in 1902, and attention was called to them by Sutton[17] in 1878 and by Coupland[4] the same year. If one chooses to attach a name to them, he should, as a matter of priority, call them Greenfield cells. Apropos of the different eponyms and Dorothy Reed's description of these cells, Willis said, "Hence, if Dorothy Reed's name is to be retained eponymically, we shall have to employ a compound title including the names of at least 6 writers!"

I am of the opinion that the term "Hodgkin's disease" should be used only in connection with a malignant neoplasm. In other words, one should not make a microscopic diagnosis of Hodgkin's disease

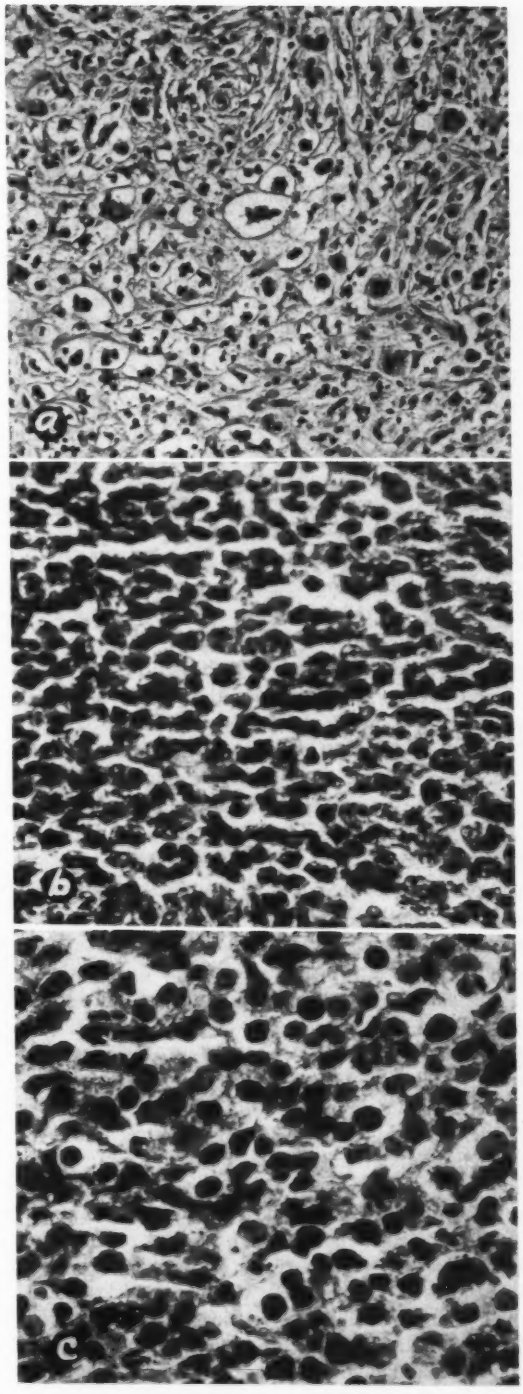

FIG. 3a. Grade 4 Hodgkin's sarcoma of lymph node showing a number of mononucleated and multinucleated malignant cells. x 270.
b. Grade 4 lymphoblastic sarcoma of a lymph node. x 500.
c. Grade 4 stem cell (reticulum cell) sarcoma of a lymph node. x 500.

on a chronic inflammatory or a chronic inflammatory granulomatous process without the presence of cells which, in the opinion of the pathologist, are neoplastic and malignant. I am also of the opinion that the term "Hodgkin's sarcoma" is very pertinent; however, I will offer no criticism of those who use other terms, provided those terms signify malignant neoplasia of nonepithelial mesoblastic ancestry. If one is willing to accept the contention that Hodgkin's disease is without exception a malignant neoplasm and never should be called a granuloma, why not drop the term "Hodgkin's disease" and call it "Hodgkin's sarcoma"? I have usually used the term "lymphosarcoma, Hodgkin's type"; however, in view of the debatable question as to whether it is or is not a lymphosarcoma (a term used by Kundrat[10] in 1893), I am willing to drop it for the term "Hodgkin's sarcoma."

CLASSIFICATION

So far as I have been able to ascertain, the classification of primary malignant neoplasms of lymphoid tissue was, for the most part, unsatisfactory prior to the publication in 1914 of Frank B. Mallory's[11] outstanding treatise entitled "The Principles of Pathologic Histology." He preferred the term "lymphoblastoma," under which he included lymphocytoma, lymphoma, lymphosarcoma, pseudoleukemia, and Hodgkin's disease. He defined lymphoblastoma as a tumor of mesenchymal origin the cells of which tend to differentiate into lymphocytes, that is, into cells of the lymphocytic series. He pointed out that the type cell of lymphoblastoma is the lymphoblast, which occurs abundantly in the germinal centers. He pointed out, furthermore, that "the lymphoblast under normal conditions passes by slight degrees of differentiation of nucleus and cytoplasm through intermediate stages, to which the term lymphocyte is applied, to the end product known as the lymphoid cell." Moreover, he stated that in the mucous membrane of the intestine the end product appears as the plasma cell and that "under pathologic conditions plasma cells may be formed in large numbers anywhere from lymphocytes and even rarely from lymphoblasts." In an endeavor to simplify the classification of malignant neoplasms of lymphoid tissue and allied malignant neoplasia or, in other words, place them in the same basket, A. S. Warthin[22] in 1931 wrote a pertinent article entitled "The Genetic Neoplastic Relationships of Hodgkin's Disease, Aleukaemic and Leukaemic Lymphoblastoma, and Mycosis Fungoides." I am of the opinion, therefore, that Frank B. Mallory and A. S. Warthin deserve a great deal of credit for paving the way for the development of a practical classification of malignant neoplasia of lymphoid tissue. Roulet,[15] who is thought to be the first to use the term "reticulum cell sarcoma" ("retothelsarkom") in connection with his studies of primary malignant neoplasms of lymph nodes, published in 1930 and 1932, concluded that primary sarcomas of the lymph nodes arise in reticuloendothelial tissue in contradistinction to the lymph-celled and lymphoblastic sarcomas, which arise from mature or immature lymphocytes. He divided his reticulum-cell sarcomas into three types: (1) the immature type, which contains large cells arising from the short spindle cells of the reticulum; (2) the mature type, in which the proliferating cells form a network; and (3) the combined type, in which the tumor coexists with leukemia or Hodgkin's disease and tends to undergo fibrous change and sclerosis.

In relatively recent years the term "malignant lymphoma," which implies a malignant neoplasm of lymphoid tissue, has been frequently used to cover all or practically all types of malignant neoplasia that are thought to be primary in lymphoid tissue. This has been especially true since 1942, when Edward A. Gall and Tracy B. Mallory[6] published an enlightening article entitled "Malignant Lymphoma: A Clinico-Pathologic Survey of 618 Cases." From a cytologic standpoint, they divided malignant lymphomas into seven categories: (1) stem-cell lymphoma, (2) clasmatocytic lymphoma, (3) lymphoblastic lymphoma, (4) lymphocytic lymphoma, (5) Hodgkin's lymphoma, (6) Hodgkin's sarcoma, and (7) follicular lymphoma. They pointed out that "A distinct division can be made between the first four types and the last three," and that the histologic pattern of the first four types is comparatively simple and that of the last three relatively complex.

Gall and Mallory stated, furthermore, that with the exception of the peculiarities of the type cell the general structure of the first four types is such that many features can best be described commonly for the entire group. A feature common to all of the first four types "is the tendency of proliferating cells to encroach upon, obscure and finally replace the normal nodal architecture, reconstructing the stromal framework more or less completely in the process. Tendencies to invade marginal and medullary sinuses, to migrate through the capsules and invade perinodal tissues are representative of all four and are found irrespective of the degree of localization or generalization of the disease. In nodes showing an early stage of involvement it is frequently possible to observe invading strands of tumor cells projecting from an established focus into the residual normal tissue of the node. Under such conditions the reticulum fibrils of the original tissue appear to be pushed aside rather than disrupted by the invading cells, resulting in a stromal condensation which occasionally simulates encapsulation. This, however, is but a transient phase,

and eventually, with complete invasion all evidence of this condensed reticulum disappears and a delicate fibrillar network completely replaces the pre-existing stroma."

In classifying primary malignant neoplasia of lymphoid tissue, I prefer to retain the term "sarcoma," regardless of the cytogenesis and cytodifferentiation of the principal malignant cells of a given neoplasm. In spite of the fact that the term "sarcoma" means only flesh tumor and, in common with the term "cancer," which means crab, may not be scientific, nevertheless as the result of long usage the name "sarcoma" immediately connotes in the minds of physicians a malignant neoplasm of connective tissue or of nonepithelial tissue that developed from the mesoblast just as cancer connotes a malignant neoplasm of epithelium. The presentation of Gall and Mallory, especially their cytologic classification, represents a great step forward by way of enabling one to arrive at a more realistic perspective of malignant neoplasia of lymphoid tissue, regardless of its situation. I am pleased to note that Gall and Mallory saw fit not to use the term "Hodgkin's granuloma" in their classification and that they use "lymphoblastic lymphoma" to represent one of seven categories of malignant lymphoma instead of the group as a whole and, moreover, that they did not put reticulum-cell sarcoma in a separate category but, on the contrary, placed it in a bracket under stem-cell lymphoma and clasmatocytic lymphoma. In view of the fact that there occurs an occasional primary sarcoma of lymphoid tissue in which plasma cells predominate, I think it would be a good idea to add plasmacytic sarcoma to the group.

NUMERICAL MICROSCOPIC GRADING

In an unpublished Mayo Foundation thesis in 1928, W. P. L. McBride[12] was the first, so far as I have been able to ascertain, successfully to grade malignant neoplasms of lymphoid tissue on a 1 to 4 basis, utilizing the fundamental principle of cell differentiation comparable to that used in the grading of carcinoma with the object in view of determining the survival rate of patients. He graded 40 cases of lymphosarcoma and 36 cases of lymphosarcoma of the Hodgkin's type. By using the two groups collectively, he concluded that lymphosarcoma and lymphosarcoma of the Hodgkin's type are one and the same disease and that both are of a malignant nature and arise from reticuloendothelial tissue in the same manner as carcinoma arises from epithelial tissue. He concluded, furthermore, that life expectancy is in direct proportion to the degree of cellular differentiation and can be expressed in grades of malignancy.

Vaughn,[20] using the same system, in 1941 published the results of his grading of 201 cases of lymphosarcoma and lymphosarcoma of the Hodgkin's type without separating the two. He concluded that the survival rate was better in those patients with grades 1 and 2 neoplasms than in those with grades 3 and 4 neoplasms.

Murray[13] in 1943, with me as co-author, published the results of his grading of 379 cases of primary malignant neoplasia of lymph nodes. The microscopic diagnosis was made prior to 1932; thus, at least ten years in all cases had elapsed between the time the diagnosis was made and the time at which his study began. This study revealed that the numerical microscopic grade in primary lymphosarcoma, exclusive of the Hodgkin's type, bore a definite relationship to the time of survival following the microscopic diagnosis; that the survival rate of patients with lymphosarcoma, grade 1 (exclusive of the Hodgkin's type), is similar to that of patients with giant follicular lymphosarcoma. On the contrary, the microscopic grade of malignancy in lymphosarcoma of the Hodgkin's type bore no definite relationship to the time of survival of the patients following the microscopic diagnosis. In other words, the survival rate is about the same for all grades.

Roulet, in 1930 and 1931, in his studies of primary malignant neoplasms of lymph nodes, concluded that tissues from different patients show different degrees of malignancy. Jackson[9] in 1937 called attention to the variation in longevity and prognosis in different forms of Hodgkin's disease and allied disorders. He divided Hodgkin's disease into three types, which he called early Hodgkin's disease, classical Hodgkin's disease, and Hodgkin's sarcoma. The greatest longevity and the best prognosis were noted in early Hodgkin's disease and the shortest longevity and the worst prognosis in Hodgkin's sarcoma, with classical Hodgkin's disease in a middle position. Jackson also noted a variation in longevity and prognosis in other forms of malignant neoplasia of lymphoid tissue. Gall and Mallory in 1942 appreciated the variation of malignancy in primary malignant neoplasms of lymphoid tissue, as attested by the fact that five-year survivals range from 3 per cent in patients with lymphoblastic lymphoma to 53 per cent in those with follicular lymphoma.

I have never as a routine procedure numerically graded primary sarcomas of lymphoid tissue. However, I have graded an occasional case, especially if I thought it was a grade 1 or a grade 4, and I did serve as an adviser in the investigations of McBride, Vaughn, and Murray and was a co-author with Murray in the publication of the results of his investigation. I am of the opinion that the time has arrived

when one can routinely utilize the numerical microscopic grading system in primary malignant neoplasms of lymphoid tissue and with a fairly high degree of accuracy can predict the survival rates of patients.

Obviously, the division of primary sarcomas of lymphoid tissue into types, with the object in view of determining the survival rates of patients, is a form of grading the malignancy of these neoplasms. Although this method has proved of value, it does not enable one to express mathematically the average malignancy of the various types nor of the group as a whole in any way comparable to that by which one is able to work with the numerical microscopic grading system on the basis of 1 to 4, in which the average malignancy is arrived at by adding the numerals indicative of the malignancy and dividing the result by the number of cases; for example, 1 plus 2 plus 3 plus 4 equals 10, divided by 4 equals 2.5, as the average grade for the four, or the equation $\frac{1+2+3+4}{4}=2.5$.

In applying the numerical microscopic grading system to primary malignant neoplasms of lymphoid tissue it is important to remember that the grade of malignancy, which is known to vary greatly in the group as a whole, may also show variation in the individual types. For example, giant follicular sarcomas (Brill-Symmers' disease), generally thought to be the least malignant, cannot always be graded 1, as some of these are more malignant. The same thing applies to lymphocytic sarcomas, some of which are grade 1 and others grade 2. The results of Jackson's studies tend to support the contention that Hodgkin's sarcoma may have quite a range in its grade of malignancy. The same also applies to plasmacytic sarcoma. Lymphoblastic sarcoma, stem cell sarcoma, and clasmatocytic sarcoma have a high average of malignancy, as they are usully grade 4 and rarely less than grade 3.

SUMMARY

A limited review of the history of our present-day knowledge of the pathology of primary malignant neoplasia of normally situated and heterotopic lymphoid tissue shows that a number of investigators have contributed to it. Probably the most outstanding contributions pertain to the entity commonly known as Hodgkin's disease.

The groundwork for the development of a workable classification of primary malignant neoplasms of lymphoid tissue was made by Frank B. Mallory in 1914 and was supplemented by A. S. Warthin in 1931. This was further developed by Edward A. Gall and Tracy B. Mallory and reached a state of real practicability in 1942.

The numerical microscopic grading of primary malignant neoplasms of lymphoid tissue was first applied in 1928 by McBride. Since that time various investigators have corroborated, for the most part, the results of his studies, and now pathologists are in a position to utilize this knowledge in predicting with a fairly high degree of accuracy the survival rates of patients.

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STUDIES ON THE INHERITANCE OF HEMOPHILIA BY LABORATORY TESTS

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THE successful use of laboratory tests to determine heterozygosity and homozygosity in the inheritance of the Rh factors suggested the possibility that laboratory methods also might be applied to determine similar relationships in the case of hemophilia. Such information, if obtainable, could be of considerable clinical value in the finding of female carriers and in shedding light on the question of female hemophilics, male carriers, and heterozygous or partial hemophilics, both male and female. The family studies herein reported were begun in 1948.

It has been commonly accepted that hemophilia is inherited as a sex-linked recessive character. Otto,[11] who characterized the disease in 1803, noted that bleeders were males and that females who did not exhibit a bleeding tendency could transmit the condition to their sons. Nasse[10] gave this theory the status of a law. Lossen[8] in 1876 went further and stated that a male, even though a bleeder, never transmitted the disease. These concepts in toto or in part are still widely held today even though as early a study as that of Hay[6] (1810) clearly showed transmission by males and many studies have indicated a bleeding tendency in females of hemophilic families.[4]

Bauer,[1] in explaining the scarcity or absence of true hemophilic females, suggested that female hemophilia might occur only with the homozygous condition (that is, two defective X chromosomes) and that such a homozygous state might be lethal.

Although earlier workers had no satisfactory method of detecting carriers or heterozygosity, this concept of inheritance only through female conductors of hemophilia has been seriously questioned on occasion as pointed out by Gates.[4] More recently, Merskey[9] has brought up to date studies on the family first reported by Treves in 1886. Four females in the fifth generation of this family whose parents were first cousins have laboratory and clinical findings of hemophilia. Israels and others[7] have reported hemophilia in the female.

The lack of any single specific laboratory test for hemophilia and, in milder cases at least, the lack of agreement concerning specific clinical criteria have made for doubt and confusion. Any departure from the clinical concept of hemophilia, especially with regard to female hemophilics or male carriers, has generally been met with skepticism. The actual defect or defects are by no means clearly established. The roles of plasma antihemophilic factor (antihemophilic globulin), antithromboplastin, and possible vascular factors still need further evaluation. On the other hand, Brinkhous and others[3] seem to have demonstrated convincingly that canine hemophilia at least is a true recessive sex linked disease in the classical pattern with the disease appearing in males and in the case of females only those homozygous to the defective gene showing the clinical disease.

The possibility of the origin of hemophilia de novo through mutation has been considered by many authors. Haldane[5] suggested that most of the sublethal hemophilia genes in the X chromosome carried by males would be lost in each generation and that a mutation rate of approximately 1 in 50,000 would be required to maintain the incidence of hemophilia in the population of London. He felt that the evidence for mutation in a given family would be stronger the greater the number of normal males in the female line of ancestry. Boggs,[2] for example, has tabulated many cases of spontaneous hemophilia from the literature presumed to be of mutational origin. He reported a family in which there were 6 male hemophilics with no history of bleeding in the antecedents of the direct female line of the mother or in the father's family, although the study included histories on five generations involving large families.

METHODS

To avoid the controversial pitfalls as much as possible in these studies, we decided to start with typical clinical cases of hemophilia with compatible laboratory findings. All available relatives were then studied with the following laboratory tests: platelet count, bleeding time, clotting time (Lee and White), one stage prothrombin time, prothrombin consumption (one stage), and recalcified plasma clotting time after slow and fast centrifugation. In addition, erythrocyte antigen studies including A_1, B, C, D, E, c, C^w, d, e, M, N, P, Lu^a, Le^a, and Kell were done to establish relationship and rule out nonpaternity.

From the J. K. and Susie L. Wadley Research Institute and Blood Bank and the Department of Laboratories, Baylor University Hospital.
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The one stage prothrombin utilization or consumption test was performed exactly as described by Quick.[13] The blood was drawn by venipuncture in silicone coated needles and syringes into clean siliconed test tubes (13 by 100 mm.) and allowed to clot. Initially, serum was obtained for the test at one hour, three hours, and twenty-four hours after collection. Later, however, we standardized on the twenty-four hour test because of the more uniform results in controls. To find the range of normal, the test was run on 100 consecutive blood specimens obtained from blood donors in the Blood Bank and an additional 10 pregnant women on the maternity service.

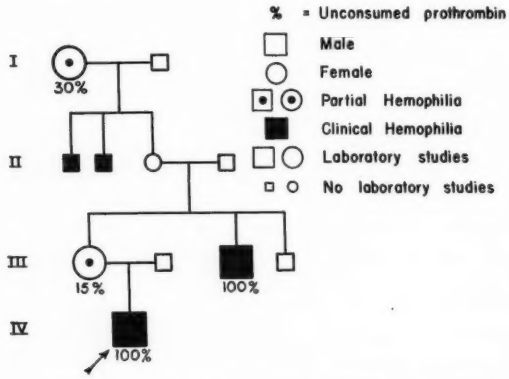

FIG. 1. Diagram of a family showing inheritance of hemophilia according to the classical pattern with female carriers and male hemophilics.

RESULTS

The normal series of one stage prothrombin consumption tests run at twenty-four hours on blood donors and pregnant women showed a range of from 5 to 10 per cent residual prothrombin (67 seconds to 40 seconds) in blood donors and from 2 to 5 per cent (75 seconds to 50 seconds) unconsumed prothrombin in the 10 pregnant patients. The normal range was arbitrarily extended to 15 per cent upper limit. From 15 to 20 per cent was considered a probable abnormal range and above 20 per cent definitely abnormal.

In figure 1, the inheritance seems to follow the classical pattern, and if 15 per cent or over is accepted as abnormal for unconsumed prothrombin at twenty-four hours, it appears that the female carriers might be determined with this technique.

Figure 2 shows a family study in which 31 persons in three generations were studied with complete laboratory techniques. Of the 3 male hemophilics, 1 had died, but the 2 studied were typical with apparently complete failure to consume prothrombin in the clotting process after twenty-four hours. Both of these cases also showed abnormal clotting time (135 and 180 minutes) and typical recalcified plasma clotting times after slow and fast centrifugation (slow 193 seconds and fast 1,021 seconds; slow 162 seconds and fast 790 seconds). In this family, also is evident a pattern of partial prothrombin utilization defects in both females and males with a surprisingly high incidence of such defects in the relatives of the father and the mother of the hemophilic individuals. Sixteen out of the 31 persons tested gave values of more than 15 per cent whereas 12 had values of 20 per cent or greater for unconsumed prothrombin. The measurable defect occurring in sister, mother, and grandmother of the two typical hemophilics suggested that the carriers were possibly being identified by the test. The father of the hemophilics, however, had normal laboratory findings.

Figure 3 shows the study of 35 persons in five different generations. The 1 case of hemophilia was typical clinically and showed clotting time 33 minutes with prothrombin 100 per cent unconsumed at twenty-four hours. The recalcified plasma clotted at 190 seconds after slow centrifugation and 360 seconds after fast centrifugation. Again a high proportion of relatives studied showed abnormal prothrombin consumption (14 out of 35). However, both father and mother

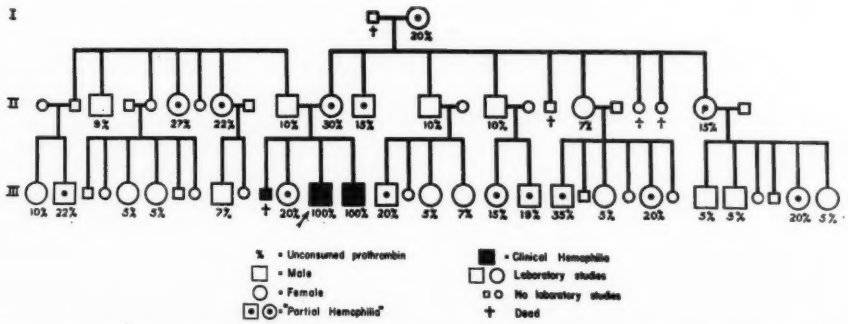

FIG. 2. Family study showing apparent partial prothrombin utilization defects in males and females in both maternal and paternal relatives.

had abnormal tests. Of the 14 showing decreased prothrombin utilization, 12 also gave prolonged clotting time (1 had prolonged clotting time with normal prothrombin utilization).

Figure 4 is representative of the studies on the same family. In figure 4 (upper diagram), the pedigree is as given by the mother, but the family tree as revealed by the erythrocyte antigen studies is shown in the lower diagram. The mother readily answered questions concerning her family and stated there had been no previous cases of hemophilia known. During her present marriage she had 2 children, both hemophilic. Previously, she had had 2 children by another husband, 1 child normal and living, the other dead but not of hemophilia. In addition, she had a normal son by a third man. The serologic studies showed that one of the hemophilic children could not be the issue of either husband, an interesting fact when the rarity of hemophilic genes, especially in the Negro race, is considered. This case emphasizes one of the dangers faced in doing genetic studies on any disease even when those involved are trying to give the whole story. In this case, again we find a high percentage of both sides of the family showing a prothrombin utilization defect (6 out of 10 including the 2 hemophilics) but no significant correlation with clotting times. The mother gave a history of epistaxis before puberty and the grandmother, a history of menorrhagia and excessive bleeding after tooth extraction.

Figure 5 shows another family study with no previously known hemophilics. One child had died of hemophilia; the other was of the typical clinically severe type. Thirteen out of the 18 studied in this family showed abnormal prothrombin consumption and in this group there was 100 per cent correlation with increased clotting time (1 to 4 minutes over the normal of 15 minutes). In this family, both parents had measurable defects and a sister of the patient had 27 per cent unutilized prothrombin and a clotting time of 19 minutes 40 seconds but no bleeding tendency.

Two additional families were studied but only a few of the relatives could be made available. The first case was a Negro boy, aged 11, whose mother and great-grandmother were studied and showed 15 and 30 per cent unconsumed prothrombin. An uncle and two great-uncles had been severe bleeders.

The second family (fig. 6) had 2 severely hemophilic boys but knew of no previous or related hemo-

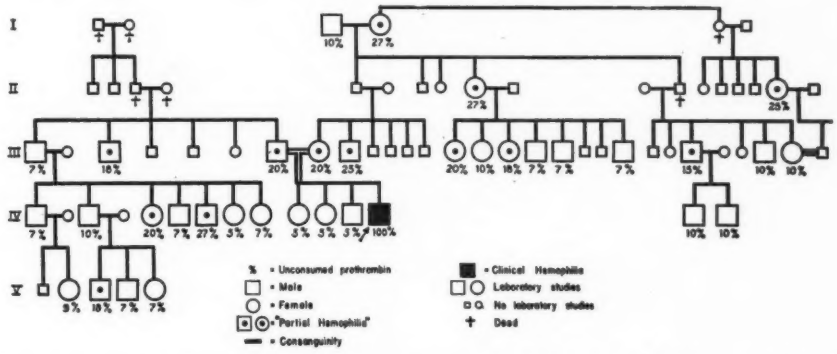

FIG. 3. Study of 35 persons in five generations. Note the pattern of partial defects of prothrombin utilization scattered throughout the pedigree including the father and mother of the hemophilic patient.

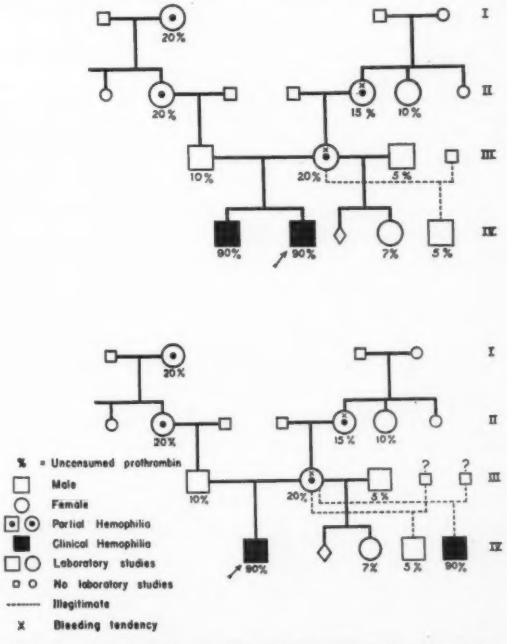

FIG. 4. Family pedigree as obtained from the mother *(upper diagram)* and as proved by blood grouping *(lower diagram)*.

philics in four generations. However, a great-grandmother (paternal) bled excessively but delivered 8 children. The maternal grandmother bruised easily but gave no history of bleeding. The laboratory studies showed 45 per cent unconsumed prothrombin in the typical by clinical and laboratory criteria. At the same time, it should be noted that the technique found most useful, namely, the one stage prothrombin consumption test, was carefully standardized on 100 random blood donors and 10 pregnant women. These results showed a normal probability curve with a maximum of 10 per cent unconsumed prothrombin at

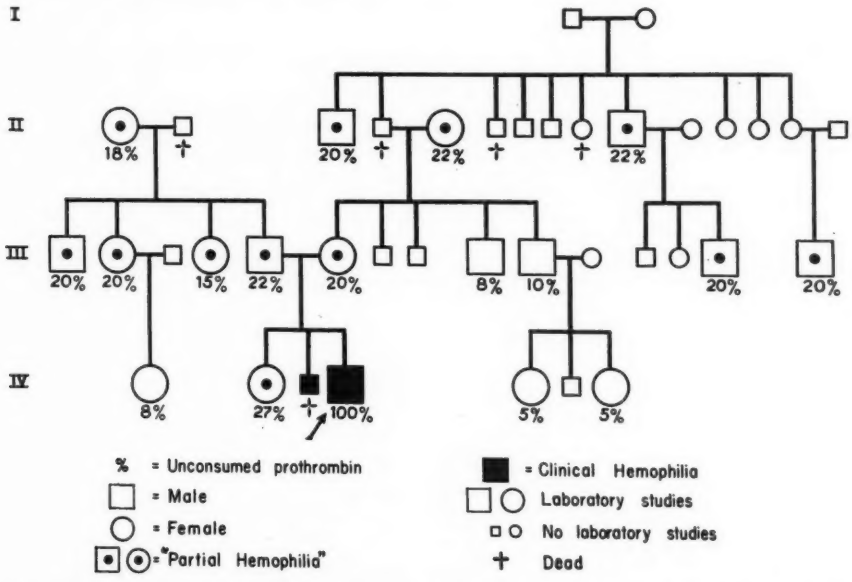

FIG. 5. A high percentage of relatives show partial prothrombin utilization defects, but there is no known prior hemophilic ancestor.

father, 20 per cent in the mother, and 30 per cent in both parents of the father.

To summarize the findings, there were studies of 7 families in which a total of 109 persons had the complete laboratory examinations. There was a total of 10 hemophilics studied, and 50 relatives showing partial prothrombin utilization defects, namely 15 per cent or more prothrombin in the serum unconsumed twenty-four hours after collection of the blood. The results of the other laboratory tests showed no abnormal platelet counts, bleeding time, or prothrombin time. Prolonged clotting time correlated well with hemophilia but did not give results entirely parallel with the prothrombin consumption in the relatives with partial defects. The same was observed with the recalcification plasma clotting time after slow and fast centrifugation.

DISCUSSION

These studies had the primary objective of obtaining data on the families of hemophilics more than on the hemophilics themselves. It was not our purpose to find a more specific test for hemophilia but to use available laboratory methods to discover peculiarities in families of known undoubted cases of hemophilia twenty-four hours. Assuming 15 per cent to be the lower limit of significance under these circumstances would seem to be conservative and reasonable.

On the other hand, no claims are made that the prothrombin consumption test is specific for hemophilia or partial hemophilia (if such a term is admissible). Indeed, the one stage test can hardly be considered specific for prothrombin since it ignores the accelerators and other factors. However, under the conditions of this study and with the additional lab-

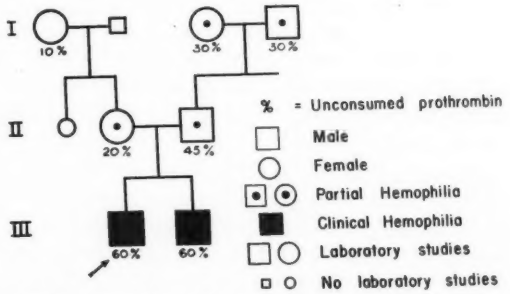

FIG. 6. Another family shows partial prothrombin utilization defects in several relatives, but there are no known hemophilics prior to the 2 severely hemophilic brothers.

oratory tests, such as platelet counts, prothrombin determination, clotting time, and in some instances Ac-globulin determination, we believe the results become sufficiently specific for the purpose.

Another feature of this survey was the extensive use of the determination of a large number of the blood antigens to control the accuracy of the genetic studies. This is particularly important in dealing with so-called spontaneous hemophilia as pointed out by Boggs.[2] The usefulness of these genetic considerations was well illustrated in the case represented by figure 4, and adds certainty to the other family studies.

There was a surprising number of persons in the families examined who showed partial defects. Surprising, too, was the relative uniformity of distribution on both maternal and paternal sides of the pedigree. Such findings are somewhat at variance with the classical concept of the heredity of the hemophilic but harmonize well with clinical observations past and present. For example, spontaneous hemophilia is more readily explained without resorting to a mutation rate of anything like 1 in 50,000.[5] Furthermore, inheritance of the defect or part of the defect through the male becomes the rule rather than the exception.

The female hemophilic may be regarded in a new light. The severe clinical hemophilic female probably still results from a coincidence of the inheritance of a severe defect from both the father and mother. However, lesser degrees of a bleeding tendency in females seem to be possible from inheritance of a defect that in males, at least, is part of the hemophilia picture. Why should such cases not be considered as mild or partial hemophilics? On the other hand, in these families there also appeared a partial defect in males. Another peculiar feature of these findings is that partial abnormality of prothrombin consumption did not always coincide with a clinical tendency to bleed in either sex.

It seems likely that such partial defects in families not marked by a known definite hemophilic might account for a few of the male or female diagnostic problem cases in the hemorrhagic diseases.

Finally, more extensive studies of hemophilic families will be required before any final modifications of old established theories of the inheritance of this disease are made. The data herein reported suggest the possibility of multiple factors in the inheritance and therefore probably in the mechanism of hemophilia. Newer information from the studies of coagulationists may make it possible to separate these factors and to study their inheritance with suitable laboratory methods. Such work as that of Tocantins, Owren, and Seegers open up such possibilities. Our studies suggest the desirability of studying the relatives as carefully as the patient to complete our knowledge of this disease. A therapeutic implication would be to avoid relatives of the patient, even though they may be free of symptoms, when selecting blood donors for patients who have bleeding tendencies akin to hemophilia.

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Drs. Hill and Wittstruck, Baylor University Hospital, Dallas.

Dr. Crass, Department of Pathology, University of Texas Medical Branch, Galveston.

Dr. Ellis, Department of Pathology, Cornell University College of Medicine, New York.

ABSTRACT OF DISCUSSION

DR. E. ROSS KYGER, JR., Fort Worth: Dr. Hill again has demonstrated his capacity for originality of thought and adaptation of investigative techniques. The paper illustrates well the fact that one never knows what new clinical knowledge may result from the introduction of a new laboratory procedure. In this instance Dr. Quick seems to have envisaged something of what Dr. Hill has done when in a recent publication regarding the prothrombin consumption test he wrote: "Since the test is still new and therefore has not been applied widely, its potentialities remain unpredictable but may be far-reaching."

Despite the lack of specificity of the test as compared to Rh antibody agglutinations in determining heterozygosity, the implications of the studies Dr. Hill and his colleagues report are clear and well controlled. The evidence, we might say, is circumstantial, but nearly overwhelming. Undoubtedly these studies will be repeated and extended by other investigators. In time we will know what proportions of minor and obscure hemorrhagic states are explained on this basis. At

the moment I find myself somewhat confused in attempting to reorient my too-well indoctrinated concept of the genetic pattern in hemophilia. It was somewhat less perplexing when Dr. Doan recently declared that he considered polycythemia vera to be a familial disease due to a recessive trait which often manifested itself in collateral relatives in a subclinical form. Now it appears possible that true hemophilia will be placed along side such hematologic disorders as thalassemia and sickle cell disease in which the carriers or subclinical cases are readily detectable.

CASE REPORTS

Malignant Melanoma: A Case Series

DUDLEY JACKSON, JR., M.D., and DAVID A. TODD, M.D., F.A.S.C.P.,
San Antonio, Texas

ONE of the most treacherous and unpredictable of the neoplastic diseases is malignant melanoma. The incidence in relation to other malignancies is statistically rare, but since it is one of the few cancers that in many cases can be actively prevented, more and more attention is being focused on its treatment. In the group to be presented these factors will be dealt with only briefly, and it is to be understood that far more numerous series have been analyzed. The real value of this study can be in the demonstration that a radical surgical attack need not necessarily be doomed to failure.

All patients were encountered in the private practice of the junior author and Dr. Dudley Jackson, Sr.; all pathologic interpretations were by Dr. Todd; and all slides of tissue specimens were reviewed by the Research Tumor Registry, M. D. Anderson Hospital for Cancer Research, Houston, or other agencies.

More than 100 cases were analyzed for this study, but it was found that only 47 patients had presented themselves with untreated melanoma or immediately after local excision elsewhere. Since all of these patients were treated in essentially the same way (that is, by surgery) it is hoped that this study will be of value to the clinician desiring to know the results in an admittedly selected group of patients.

Pack, in a critical and far-reaching analysis of the problem in 1947, gave the figures on 862 patients with melanoma studied at Memorial Cancer Center in New York. Sixty-four per cent of these patients, however, had received prior treatment elsewhere, and all cases, no matter how far advanced, were included in the survey. Such cases have been purposely excluded from this small series, but only to evaluate a standardized type of surgical treatment. Although several patients were subjected to the "in-continuity" type of surgical procedure recommended by Pack, the majority came to surgery before this procedure became popular, and our results are therefore inconclusive in this respect. Inguinal lymph node dissection, except for recent cases, was not the usual surgical procedure involving the entire peri-iliac and obturator chain of nodes. The usual technique encompassed the superficial inguinal nodes only. Perhaps the only other unique feature was the use of the electrosurgical unit exclusively rather than the scalpel. Only major vessels were ligated, all others being electrocoagulated. If gross tissue resembling metastatic melanoma was encountered in the operative area during surgery, specimens were examined immediately by Dr. Todd on fresh frozen section in the operating room. If they were positive, all exposed areas were subjected to extensive electrocoagulation to prevent the local transplantation of tumor cells so commonly met in local excisions of primary melanoma. The large surgical defects were always handled by split thickness, sliding flap, or tube pedicle grafts.

The opinion by Stewart Gordon that the clinical course of the disease is "quite erratic" is perhaps an understatement. Prognosis seems to be extremely uncertain, as indicated by 2 of the presented cases in which multiple local metastases have been excised locally over a period of years without harm to the patient. On the other hand, widespread and generalized melanoma may invade the body via the blood stream at any time. A number of deaths have occurred from melanoma when no primary lesion could be found, even on necropsy.

Other than the obvious, no attempt will be made to correlate these findings with the other larger series that have been presented in the literature. As mentioned by Binkley, a striking observation is that red-haired, freckle-faced persons make up the great majority of this group of melanoma patients.

Read before the Section on Clinical Pathology, Texas Medical Association, Annual Session, Dallas, May 6, 1952.

Primary radiation therapy has not been used in this group, but not because of a complete rejection on the part of the authors. It has been used invariably as a last resort in cases far beyond the scope of surgery in the hope that possible palliation might be obtained. The rare and occasional response encountered seems to encourage such efforts, but in no case has adequate surgery been delayed because of a therapeutic trial of radiation therapy. In addition, the almost negligible group of patients showing favorable response to palliative radiation therapy have shown no conclusive differences in the cell pattern of the lesion. No figures will be given on radiation results, because it is obvious that they would be valueless in such a small series.

ANALYSIS OF SERIES

The analysis of this group of 47 cases of malignant melanoma follows:

Age.—The average age was 48.4 years; the range between 20 and 76 years. The distribution is shown in table 1.

TABLE 1.—*Age Incidence in 47 Patients with Malignant Melanoma.*

Age (Yr.)	No. Patients
20-29	6
30-39	9
40-49	8
50-59	9
60-69	11
70-79	4
Total	47

Sex.—Fourteen of the patients were males, 33 were females.

Regional Lymph Node Involvement.—Seventeen of the 47 patients had proved regional lymph node involvement; 30 did not.

Location.—Table 2 shows the location of the lesions in this series. The only lesion found on a mucosal surface was a primary melanoma of the anterior vaginal wall.

TABLE 2.—*Site of Malignant Melanomas in 47 Cases.*

Location	No.
Skin of head and neck (including 3 of right auricular region)	11
Extremities	21
Upper (including 7 on the left upper arm)	12
Lower	9
Toes or feet	3
Lower leg	5
Thigh	1
Skin of trunk	8
Upper back	6
Flank	1
Anterior chest wall	1
Eye	6
Anterior vaginal wall	1

Duration.—Since by far the majority of these patients stated that some type of pigmented lesion had always existed in the area where the melanoma began, duration has been given as the time interval between the appearance of a noticeable change in the growth and the application of primary surgery.

Only 10 of the group of 47 were unable to give an estimate of the time elapsed between changes in the tumor and the primary surgery. In the remaining 37, the estimates ranged from five years to one month, the average being sixteen months. Description of the sudden difference in the character of the growth included changes in size or shape or degree of pigmentation, onset of inflammatory or purulent changes, bleeding, or even the appearance of masses in the lymph node group draining the area. A high incidence of trauma preceding the sudden changes was noted, a fact mentioned by Gordon. This could well be coincidental.

Many patients had been advised repeatedly over a long period by their physicians to have wide excisions of such lesions only to wait until a change in the appearance began to cause them concern. All too frequently, however, patients had been seen by physicians who had failed to advise excision or had attempted to destroy the growth by office electrocoagulation. On the other hand, a patient seen recently had an obvious melanoma on the skin of the left upper arm. Radical surgery was advised and refused. Since a portion of the lesion had recently been traumatized and was about to fall off, it was sent to the laboratory and found on frozen section to be a typical highly malignant melanoma. Even after a detailed explanation of the prognosis, the patient refused surgery and stalked out indignantly because a "medicine" to apply to the lesion was not prescribed.

Survival.—Of the total series 22 patients have been studied for five years or longer. Of this group 7 are dead, 15 alive. Of 35 patients studied for three years or longer, 11 are dead, 24 alive. In the five year group, 11 of the 22 patients had involvement of lymph nodes at the time of surgery; 7 are dead and 4 survive. In the three year group, 14 of the 35 patients had positive nodes at the time of surgery; 10 are dead and 4 survive. Of the patients with no involvement of nodes studied five years or longer, all survived. In the three year group only 1 patient who had no node involvement was lost.

Of the entire series of 47 patients, including some recently operated upon, 12 are dead. Of these 12, only 2 did not have regional node involvement at the time of surgery.

Local Recurrences.—Of the 15 patients surviving five years, 2 had local recurrences. Of the 7 dead in the five year group, 3 had local recurrences. Of the 24 three year survivals, 2 had local recurrences. Of the 11 dead studied three years or more, 4 had local recurrences.

Deaths.—There were 12 deaths in the entire series of 47 patients. The average length of survival following surgery was 26.8 months. The longest was 53 months, the shortest 3 months. The individual figures are as follows: 53, 50, 44, 41, 33, 24, 21, 15, 14, 12, 12, 3 months. Since only 4 or one-third of these patients who were to die eventually of melanoma lived beyond three years, the approximate value of a three year follow-up can be seen.

CASE REPORTS

There were 4 cases in this group that were somewhat unusual.

CASE 1.—At the age of 37 years, five years ago, this white woman during pregnancy developed a melanoma of the skin of the back, at the midline. This was widely excised with no evidence of recurrence until three years later, when she was operated on for what was thought to be an ovarian cyst. Both ovaries were found to be involved with a large, black mass of metastatic melanoma similar to a Krukenburg process. There was no evidence of other lesions throughout the abdomen and the mass was resected in toto. Again she remained asymptomatic until a mass developed within the right breast. This was resected in March, 1951, and found to be metastatic melanoma involving lymphoid tissue within the breast. A similar lesion was removed from another part of the breast in November, 1951, and the patient remains free of any evidence of further disease. A chest roentgenogram made in March, 1952, was negative.

CASE 2.—At the age of 57 this white male dentist developed a melanoma of the right eye. Enucleation was done, twelve and one-half years ago, followed by a local recurrence in the orbit three years later. This was followed by electrosurgical exenteration of the orbit, and the patient has remained free of disease ever since.

CASE 3.—At the age of 48 this white woman developed a melanoma of the skin of the left scapular region. Wide excision ten and one-half years ago was followed by the appearance of metastases to the left axillary nodes, removed by axillary dissection six months later. Two years after this, a local recurrence developed in the scar of the original lesion, and it was widely resected. There has been no evidence of recurrence since then.

CASE 4.—This 51 year old white woman, possessed of a marked cystocele, discovered a pigmented lesion on the anterior vaginal wall by self-inspection with a mirror. Wide excision was carried out, and when additional consultation confirmed the diagnosis of melanoma, the scar was widely excised and bilateral simultaneous radical groin dissection was carried out. No nodes were observed to be involved, and no residual tumor could be found in the excised scar. This is a recent case and is added only because of the unusual location.

COMPARISON OF RESULTS

It would be difficult to compare this series with the work of others because of the selectivity of the patients and the doubtful statistical value of such a small number of cases. Pack reported a five year survival rate of 17.7 per cent in localized melanoma, 15.6 per cent in disease that involved nodes. De Cholnoky, in an analysis of various authors, reported an average overall survival rate of 19.2 per cent. Ackerman and del Regato reported 30 per cent five year survival for localized disease, 10 per cent for melanoma already metastatic to nodes.

CONCLUSIONS

The analysis of a selected group of patients having malignant melanoma seems to indicate that a respectable rate of salvage can be obtained by adherence to an aggressive surgical attack, even though metastases to regional lymph nodes have occurred.

The prophylactic wide surgical removal of pigmented nevi, especially in areas subjected to trauma, could possibly appreciably lower the incidence of melanoma. This measure should be applied especially to fair-skinned, red or sandy-haired, freckled persons.

All possible attention should be paid to the principle of wide and radical excision if the incidence of local recurrence and regional metastases is to be lowered. The resident surgeons of one cancer center apply a useful rule-of-thumb that all excisions of melanomas of an extremity not requiring a skin graft are inadequate.

Appearance of local recurrences and even of accessible and isolated distant metastases does not necessarily condemn the patient.

Questionable lesions should not be subjected to biopsy but totally excised, and the decision to employ wider and possibly more mutilating surgery made on the appearance of the lesion to fresh frozen section. Lesions that are clinically typical should be widely and deeply excised at the outset, and the findings on frozen section should govern the decision regarding regional node dissection. In the relatively few cases in which biopsy must be resorted to, frozen section should be used, and extreme care employed during subsequent surgery to prevent transplantation or "seeding" from an open biopsy site.

Discussions relative to what type of nevus can or cannot give rise to melanoma should be of academic value only, and the best rule for the clinician and patient to follow is to view all pigmented skin lesions with suspicion. Bearing in mind the knowledge that eradicating pigmented skin lesions in the entire population would be impossible, special attention should be directed to persons of fair complexion and to lesions in certain locations and conditions of irritation.

Radiation therapy should not be employed at the expense of delaying definitive surgery. It should not be denied in cases beyond the scope of surgery unless its application would cause severe discomfort during the remaining life span of the patient.

In cases where massive surgical procedures seem to be indicated, each patient should be carefully individ-

ualized and age group, psyche, and environment carefully considered before such surgery is attempted.

SUMMARY

A selected group of 47 malignant melanoma patients, all treated surgically, is analyzed under the following headings: age, sex, regional lymph node involvement, location, duration, survival, local recurrences, deaths, individual cases, and comparison of results. Three and five year follow-up figures are given. Comparison is not emphasized because of the small series and selectivity of the cases. Conclusions are drawn, with much similarity to those mentioned by previous authors.

REFERENCES

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5. McCune, W. S.: Malignant Melanoma; 40 Cases Treated by Radical Resection, Ann. Surg. *130:*318-332 (Sept.) 1949.
6. Pack, G. T., and Scharnagel, I. M.: Prognosis for Malignant Melanoma in Pregnant Woman, Cancer *4:*324-334 (March) 1951.
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8. Pack, G. T.; Scharnagel, I.; and Morfit, M.: Principle of Excision and Dissection in Continuity for Primary and Metastatic Melanoma of Skin, Surgery *17:*849-866 (June)1945.
9. Raven, R. W.: Anorectal Malignant Melanoma, Am. J. Surg. *79:*85-89 (Jan.) 1950.
10. Reitman, P. H.: Radiation Therapy of Malignant Melanoma, Am. J. Roentgenol. *67:*286-293 (Feb.) 1952.

1525 Nix Professional Building.

ABSTRACT OF DISCUSSION

DR. CHARLES PHILLIPS, Temple: I have had opportunity to study a good many melanomas and find them interesting from the standpoint of behavior. My studies have been largely on the cutaneous variety; and I believe it would be better to separate these from melanoma of the eye, for they do not have too much in common but the name.

The present conception of Allen of histogenesis from junction nevus is an old one; some have held that these neoplasms are of epithelial origin and should be called melanoepithelioma. I believe that the junction nevus is highly significant as a precursor in cutaneous melanoma.

One fact about this disease is its unpredictability as to mode of spread, sites of metastasis, and dormancy. Another fact is the occasional inability to discover a primary lesion even when complete autopsy is carried out.

NEWS

COMING MEETINGS AND CLINICS

Texas Medical Association, Houston, April 28-29, 1953. Dr. T. C. Terrell, Fort Worth, Pres.; Mr. N. C. Forrester, 1801 Lamar Blvd., Austin, Executive Secy.

American Medical Association, New York, June 1-5, 1953. Dr. Louis H. Bauer, Hempstead, N. Y., Pres.; Dr. George F. Lull, 535 North Dearborn St., Chicago 10, Secy.

NATIONAL AND REGIONAL

American Academy of Allergy, Houston, Feb. 1-3, 1954. Dr. Ben Z. Rappaport, Chicago, Pres.; Dr. Alan G. Cazort, 1425 West 7th St., Little Rock, Secy.

American Academy of Dermatology and Syphilology, Chicago, Dec. 5-10, 1953. Dr. Michael H. Ebert, Chicago, Pres.; Dr. John E. Rauschkolb, 25 Prospect Ave., N. W., Cleveland 15, Secy.

American Academy of General Practice. Dr. R. B. Robins, Camden, Ark., Pres.; Mr. Mac F. Cahal, 406 W. 34th St., Kansas City 2, Executive Secy.

American Academy of Obstetrics and Gynecology, Cincinnati, Dec. 14-16, 1953. Dr. Robert A. Kimbrough, Jr., Philadelphia, Pres.; Dr. C. Paul Hodgkinson, Detroit, Secy.

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 12-16, 1953. Dr. Frederick C. Cordes, San Francisco, Pres.; Dr. W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn, Secy.

American Academy of Pediatrics, Miami, Oct. 6-9, 1953. Dr. Phillip Barba, Philadelphia, Pres.; Dr. E. H. Christopherson, 610 Church St., Evanston, Ill., Secy.

American Association for Thoracic Surgery. Dr. Robert M. Janes, Toronto, Canada, Pres.; Dr. Paul C. Samson, 2938 McClure St., Oakland 9, Calif., Secy.

American Association of Genito-Urinary Surgeons, Hot Springs, Va., May 6-8, 1953. Dr. A. J. Scholl, Los Angeles, Pres.; Dr. Norris J. Heckel, 122 S. Michigan Ave., Chicago 3, Secy.

American Association of Obstetricians, Gynecologists and Abdominal Surgeons, Hot Springs, Va., Sept. 10-12, 1953. Dr. Nicholson J. Eastman, Baltimore, Pres.; Dr. William F. Mengert, 2211 Oak Lawn Ave., Dallas, Secy.

American Cancer Society. Dr. Guy Aud, Louisville, Ky., Pres.; Mr. M. R. Runyon, 47 Beaver St., New York, Executive Vice-Pres.

American College of Allergists, Chicago, April 24-29, 1953. Dr. J. Warrick Thomas, Richmond, Va., Pres,; Dr. Fred W. Wittich, 423 La Salle Medical Bldg., Minneapolis 2, Secy.

American College of Chest Physicians, New York, May 28-31, 1953. Dr. Andrew L. Banyai, Milwaukee, Pres.; Mr. Murray Kornfield, 112 E. Chestnut St., Chicago 11, Executive Secy.

American College of Physicians, Atlantic City, April 13-17, 1953. Dr. T. Grier Miller, Philadelphia, Pres.; Mr. E. R. Loveland, 4200 Pine St., Philadelphia 4, Secy.

American College of Radiology, Chicago, February, 1954. Dr. John D. Camp, Los Angeles, Pres.; Mr. W. C. Stronach, 20 N. Wacker Drive, Chicago 6, Executive Secy.

American College of Surgeons, Chicago, Oct. 5-9, 1953. Dr. Harold L. Foss, Danville, Pa., Pres.; Dr. Michael L. Mason, 40 E. Erie St., Chicago 11, Secy.

American Congress of Physical Medicine and Rehabilitation, Chicago, Aug. 31-Sept. 4, 1953. Dr. Walter M. Solomon, Cleveland, Pres.; Dr. Frances Baker, 1 Tilton Ave., San Mateo, Calif., Secy.

American Dermatological Association, Lake Placid, N. Y., June 9-13, 1953. Dr. Earl D. Osborne, Buffalo, Pres.; Dr. L. A. Brunsting, 102 2nd Ave., S. W., Rochester, Minn., Secy.

American Gastro-Enterological Association, Atlantic City, May 1-2, 1953. Dr. Albert M. Snell, Palo Alto, Calif., Pres.; Dr. H. Marvin Pollard, 1313 E. Ann St., Ann Arbor, Mich., Secy.

American Gynecological Society, Lake Placid, N. Y., June 15-17, 1953. Dr. William P. Healy, New York, Pres.; Dr. John I. Brewer, 104 S. Michigan Ave., Chicago, Secy.

American Hospital Association, San Francisco, Aug. 31-Sept. 3, 1953. Dr. Edwin L. Crosby, Chicago, Pres.; Mr. George P. Bugbee, 18 E. Division St., Chicago, Executive Secy.

American Laryngological, Rhinological, and Otological Society, New Orleans, April 28-30, 1953. Dr. Francis E. Le Jeune, New Orleans, Pres.; Dr. C. S. Nash, 277 Alexander St., Rochester 7, N. Y., Secy.

American Neurological Association, Atlantic City, June 15-17, 1953. Dr. Hans H. Reese, Madison, Wis., Pres.; Dr. H. Houston Merritt, 710 W. 168th St., New York 32, Secy.

American Ophthalmological Society, Hot Springs, Va., May 28-30, 1953. Dr. Conrad Berens, New York, Pres.; Dr. M. C. Wheeler, 30 W. 59th St., New York 19, Secy.

American Orthopedic Association. Dr. James Dickson, Cleveland, Pres.; Dr. George O. Eaton, 4 E. Madison St., Baltimore 2, Secy.

American Pediatric Society, Atlantic City, May 6-8, 1953. Dr. Irvine McQuarrie, Minneapolis, Pres.; Dr. Aims McGuinness, 237 Medical Laboratory, University of Pennsylvania, Philadelphia 46, Secy.

American Proctologic Society, Boston, June 10-13, 1953. Dr. Newton D. Smith, Rochester, Minn., Pres.; Dr. Stuart T. Ross, 131 Fulton Ave., Hempstead, N. Y., Secy.

American Psychiatric Association, Los Angeles, May 4-9, 1953. Dr. D. Ewen Cameron, Montreal, Canada, Pres.; Dr. R. Finley Gayle, 6300 Three Chopt Rd., Richmond 21, Va., Secy.

American Public Health Association, New York, Nov. 9-13, 1953. Dr. Wilton L. Halverson, San Francisco, Pres.; Dr. R. W. Atwater, 1790 Broadway, New York 19, Executive Secy.

American Society of Anesthesiologists, Seattle, Oct. 6-9, 1953. Dr. Ralph T. Knight, Minneapolis, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph St., Chicago, Secy.

American Society of Clinical Pathologists, Chicago, October, 1953. Dr. Henry F. Hunt, Danville, Pa., Pres.; Dr. Clyde G. Culbertson, Indiana University School of Medicine, Indianapolis, Secy.

American Surgical Association, Los Angeles, April 1-3, 1953. Dr. Robert S. Dinsmore, Cleveland, Pres.; Dr. Nathan Womack, Chapel Hill, N. C., Secy.

American Urological Association, St. Louis, May 11-14, 1953. Dr. George F. Cahill, New York, Pres.; Dr. C. H. DeT. Shivers, 121 S. Illinois Ave., Atlantic City, N. J., Secy.

Association of American Physicians and Surgeons, Chicago, April 10-11, 1953. Dr. Charles L. Farrell, Pawtucket, R. I., Pres.; Mr. Harry E. Northam, 360 N. Michigan Ave., Chicago 1, Executive Secy.

International College of Surgeons, U. S. Chapter. Dr. H. W. Meyerding, Rochester, Minn., Pres.; Dr. Arnold S. Jackson, 1516 Lake Shore Drive, Chicago, Secy.

National Tuberculosis Association, Los Angeles, May 18-22, 1953. Dr. Sidney J. Shipman, San Francisco, Pres.; Mr. Kemp D. Battle, 1790 Broadway, New York 19, Secy.

Radiological Society of North America, Chicago, Dec. 13-18, 1953. Dr. Ira H. Lockwood, Kansas City, Mo., Pres.; Dr. D. S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, Atlanta, Ga., Oct. 26-29, 1953. Dr. Walter C. Jones, Miami, Pres.; Mr. C. P. Loranz, 1020 Empire Bldg., Birmingham 3, Ala., Secy.

Southern Psychiatric Association. Dr. R. Burke Suitt, Durham, N. C., Pres.; Dr. Newdigate M. Owensby, Medical Arts Bldg., Atlanta, Ga., Secy.

Southern Surgical Association, Hot Springs, Va., Dec. 8-10, 1953. Dr. I. A. Bigger, Richmond, Va., Pres.; Dr. John C. Burch, 2112 West End Ave., Nashville 5, Tenn., Secy.

Southwest Allergy Forum, Kansas City, Mo., June 14-16, 1953. Dr. Orval R. Withers, Kansas City, Mo., Pres.; Dr. Frederic Speer, 2601 Parallel Ave., Kansas City 4, Mo., Secy.

Southwest Regional Cancer Conference. Secy., 209 Medical Arts Bldg., Fort Worth.

Southwestern Medical Association, Tucson, Ariz., 1953. Dr. Wesley O. Connor, Jr., Albuquerque, N. M., Pres.; Dr. Celso Stapp, 800 Montana, El Paso, Secy.

Southwestern Surgical Congress, Salt Lake City, Utah, Sept. 21-23, 1953. Dr. Louis P. Good, Texarkana, Ark., Pres.; Dr. C. R. Rountree, 1227 Classen, Oklahoma City 3, Secy.

Tri-State Medical Assembly. Dr. Frank G. Thibault, El Dorado, Ark., Pres.; Dr. Albert M. Hand, Le Bonheur Children's Hospital, Memphis 3, Tenn.. Secy.

United States-Mexico Border Public Health Association, El Paso, April 7-10, 1953. Dr. Salvador Molina Velez, Nuevo Leon, Mexico, Pres.; Dr. J. Ellington, 314 U. S. Court House, El Paso, Secy.

STATE

Private Clinics and Hospitals Association of Texas. Dr. S. D. Coleman, Navasota, Pres.; Dr. Neil D. Buie, Marlin, Secy.

State Tumor Clinic, Wichita Falls, April 1, 1953. Dr. Bailey R. Collins, 925½ Scott Street, Wichita Falls, Director.

Texas Academy of General Practice, Dallas, Sept. 21-23, 1953. Dr. C. U. Callan, Rotan, Pres.; Dr. Woodson W. Harris, 1410 Nickerson, Austin, Secy.

Texas Academy of Internal Medicine, Houston, December, 1953. Dr. Hatch W. Cummings, Jr., Houston, Pres.; Dr. George M. Jones, 1314 Medical Arts Bldg., Dallas, Secy. Meetings restricted to members.

Texas Air-Medics Association, Houston, April 26-27, 1953. Dr. Claire F. Miller, Waco, Pres.; Dr. J. S. Minnett, 2512 Welborn, Dallas, Secy.

Texas Association of Blood Banks, Fort Worth, Dec. 4-5, 1953. Dr. W. N. Powell, Temple, Pres.; Miss Marjorie Saunders, 3500 Gaston Ave., Dallas, Secy.

Texas Association of Obstetricians and Gynecologists, Waco, 1954. Dr. D. D. Wall, San Angelo, Pres.; Dr. Cary Hiett, 815 Fifth Ave., Fort Worth, Secy.

Texas Chapter, American College of Chest Physicians, Houston, April 27, 1953. Dr. Robert B. Morrison, Austin, Pres.; Dr. Samuel Topperman, East Texas State Sanatorium, Tyler, Secy.

Texas Club of Internists. Dr. Herbert Hill, San Antonio, Pres.; Dr. Hatch W. Cummings, Jr., 203 Hermann Professional Bldg., Houston, Secy.

Texas Dermatological Society, Houston, April 26-27, 1953. Dr. C. H. McCuistion, Austin, Pres.; Dr. Thomas L. Shields, 1216 Pennsylvania Ave., Fort Worth, Secy.

Texas Diabetes Association, Houston, April 26, 1953. Dr. E. K. Doak, Houston, Pres.; Dr. R. C. Douglas, 1312 Main, Lubbock, Secy.

Texas Division, American Cancer Society. Mr. Travis Wallace, Dallas, Pres.; Mr. J. Louis Neff, 1609 Colorado, Austin, Executive Director.

Texas Heart Association, Houston, April 27, 1953. Dr. J. C. Crager, Beaumont, Pres.; Miss Roberta Miller, 412 Fidelity Union Life Bldg., 1511 Bryan St., Dallas, Executive Secy.

Texas Hospital Association, Galveston, May 12-14, 1953. Mr. Carroll H. McCray, Tyler, Pres.; Mrs. Ruth Barnhart, 2210 Main St., Dallas, Secy.

Texas Neuropsychiatric Association, Houston, April 27, 1953. Dr. Don Morris, Dallas, Pres.; Dr. John L. Otto, John Sealy Hospital, Galveston, Secy.

Texas Orthopedic Association, Houston, April 27, 1953. Dr. Felix Butte, Dallas, Pres.; Dr. Margaret Watkins, 3629 Fairmount St., Dallas, Secy.

Texas Pediatric Society, Corpus Christi, October, 1953. Dr. J. A. Bybee, Beaumont, Pres.; Dr. M. C. Carlisle, 1410 Austin Ave., Waco, Secy.

Texas Public Health Association. Mr. H. E. Drumwright, Dallas, Pres.; Mr. Earle W. Sudderth, Dallas County Health Department, Court House, Dallas, Executive Secy.

Texas Radiological Society, Dallas, Jan. 29-30, 1954. Dr. J. E. Miller, Dallas, Pres.; Dr. R. P. O'Bannon, 650 Fifth Ave., Fort Worth, Secy.

Texas Railway and Traumatic Surgical Association, Houston, April 27, 1953. Dr. Everett Lewis, Houston, Pres.; Dr. W. D. Marrs, 306 Broadway, Fort Worth, Secy.

Texas Rheumatism Association. Dr. Robert H. Mitchell, Fort Worth, Pres.; Dr. Charles H. Cornwell, Marlin, Secy.

Texas Society for Mental Health. Mr. William Grant, Jr., Baytown, Pres.; Mrs. Elizabeth F. Gardner, 2504 Jarratt Ave., Austin 21, Executive Secy.

Texas Society of Anesthesiologists, Houston, April 27, 1953. Dr. John F. Winter, San Antonio, Pres.; Dr. C. R. Allen, John Sealy Hospital, Galveston, Secy.

Texas Society of Gastroenterologists and Proctologists, Houston, April 27, 1953. Dr. Jack Kerr, Dallas, Pres.; Dr. C. P. Hardwicke, 120 W. Seventh St., Austin, Secy.

Texas Society of Ophthalmology and Otolaryngology, Fort Worth, Dec. 4-5, 1953. Dr. Dan Brannin, Dallas, Pres.; Dr. Lyle Hooker, 627 Esperson Bldg., Houston, Secy.

Texas Society of Pathologists, Houston, April 28, 1953. Dr. A. O. Severance, San Antonio, Pres.; Dr. Lloyd R. Hershberger, Shannon Memorial Hospital, San Angelo, Secy.

Texas Surgical Society, San Antonio, April 6-7, 1953. Dr. George W. Waldron, Houston, Pres.; Dr. Albert W. Hartman, 414 Navarro St., San Antonio 5, Secy.

Texas Tuberculosis Association, Mineral Wells, April 9-11, 1953. Dr. David McCullough, Kerrville, Pres.; Miss Pansy Nichols, 208 E. Ninth, Austin, Executive Secy.

Texas Urological Society, Galveston, June 28-29, 1953. Dr. R. E. Cone, Galveston, Pres.; Dr. Ray M. Morgan, Jr., Hermann Hospital, Houston, Secy.

DISTRICT

First District Society, Pecos, February, 1954. Dr. John W. O'Donnell, Alpine, Pres.; Dr. H. D. Garrett, First National Bldg., El Paso, Secy.

Second District Society, Big Spring, April 3, 1953. Dr. John Hogan, Big Spring, Pres.; Dr. Arch Carson, Box 111, Big Spring, Secy.

Third District Society, Lubbock, April 14-15, 1953. Dr. James A. Odom, Memphis, Pres.; Dr. James T. Hall, 1626 Fifteenth Street, Lubbock, Secy.

Fourth District Society, Brownwood, Fall, 1953. Dr. Lloyd R. Hershberger, San Angelo, Pres.; Dr. Paul M. Wheelis, Brownwood, Secy.

Fifth and Sixth Districts Society, Corpus Christi, July 10-11, 1953. Dr. Y. C. Smith, Sr., Corpus Christi, Pres.; Dr. Robert J. Sigler, 1126 Third Street, Corpus Christi, Secy.

Seventh District Society, Austin, June, 1953. Dr. D. B. Faubion, Austin, Pres.; Dr. Benjamin Clary Bates, 403 W. 18th St., Austin, Secy.

Eighth District Society, Fall, 1953. Dr. Andrew S. Tomb, Victoria, Pres.; Dr. George E. Glover, Jr., Victoria, Secy.
Ninth District Society, Baytown, April 1, 1953. Dr. Otto F. Schoenvogel, Brenham, Pres.; Dr. Lyman C. Blair, 1212 Rothwell, Houston, Secy.
Tenth District Medical Society. Dr. Peyton C. Clements, Lufkin, Pres.; Dr. Edmund D. Jones, 2575 South, Beaumont, Secy.
Eleventh District Society, Tyler, April 16, 1953. Dr. Roscoe Moore, Mineola. Pres.; Dr. Marlin T. Braswell. Henderson, Secy.
Twelfth District Society, Cameron, July 14, 1953. Dr. Howard Dudgeon, Jr., Waco., Pres.; Dr. Walter B. King, Jr., Waco, Secy.
Thirteenth District Society, Wichita Falls, June 3, 1953. Dr. R. E. Gowan, Graham, Pres.; Dr. Robert D. Moreton, 815 Medical Arts Bldg., Fort Worth, Secy.
Fourteenth District Society, Gainesville, June 9, 1953. Dr. W. P. Philips, Greenville, Pres.; Dr. L. W. Johnston, 502 W. College St., Terrell, Secy.
Fifteenth District Society, Daingerfield, April 7, 1953. Dr. D. R. Baber, Daingerfield, Pres.; Dr. P. A. Reitz, Pittsburg, Secy.

CLINICS

Dallas Southern Clinical Society, Dallas. Miss Betty Elmer, Medical Arts Bldg., Dallas 1, Executive Secy.
Central Texas Spring Clinic, Waco, April 1, 1953. Dr. Walter B. King, 2320 Columbus Ave., Waco, Secy.
International Medical Assembly of Southwest Texas. Dr. John M. Smith, Jr., 205 Camden St., San Antonio, Secy.
New Orleans Graduate Medical Assembly. Dr. Woodard D. Beacham, Room 103, 1430 Tulane Ave., New Orleans 12, Secy.
North Texas-Southern Oklahoma Fall Clinical Conference, Sept. 16, 1953. Dr. C. H. Wilson, Wichita Falls, Chairman.
Oklahoma City Clinical Society Conference. Mrs. Muriel R. Waller, 512 Medical Arts Bldg., Oklahoma City 2, Executive Secy.
Postgraduate Medical Assembly of South Texas, Houston, July 20-22, 1953. Dr. C. A. Dwyer, Secy., 229 Medical Arts Bldg., Houston.

PERSONALS

Dr. F. J. L. Blasingame, Wharton, Trustee of the American Medical Association, has been named as one of six representatives from the AMA to attend the World Medical Association meeting to be held August 31-September 4 at The Hague, The Netherlands.

Dr. Andrew S. Tomb, Victoria, will present a paper, "The Problem Drinker—A Medical Responsibility," at the 1953 annual meeting of the Ohio State Medical Association in Cincinnati. He will deliver his talk before a general session the morning of April 22.

Dr. Clarence R. Miller, manager of the Veterans Administration Hospital in Marlin, will become president of the Marlin Rotary Club in July for the 1953-1954 term of office. *Dr. Walter Smith* is one of the Rotary directors.

Dr. Hardy A. Kemp, chairman of the Department of Public Health and Preventive Medicine at Baylor University College of Medicine, Houston, spoke on medical care for the aged February 17 in Galveston at the annual meeting of the Texas Public Health Association.

Dr. Ralph E. Gray, Lake Jackson, was installed as president of the Brazoria County Chamber of Commerce in February.

Dr. George Jackson, former medical director of the state hospital system, began January 25 as psychiatric consultant to the Kansas State Board of Social Welfare. *Dr. Sam A. Hoerster, Jr.,* was appointed acting medical director of the Board for Texas State Hospitals and Special Schools to succeed Dr. Jackson. Dr. Hoerster was formerly superintendent of the Big Spring State Hospital.

Three new members of the Board for Texas State Hospitals and Special Schools were appointed by Governor Allan Shivers February 20. They are *Dr. Raleigh Ross,* Austin; *Dr. James H. Wooten,* Columbus; and John G. Dudley, Houston. Drs. Ross and Wooten are practicing physicians. Dudley is administrator of Houston's Memorial Hospital.

Dr. R. C. Rowell was named superintendent of the Terrell State Hospital recently. He was succeeded as superintendent of the Austin State Hospital by Dr. Leonard P. Ristine in February.

Mrs. Mary Garrett Campbell, mother of *Dr. William J. Campbell,* Amarillo, died recently of cancer of the breast with general metastasis. She was buried in Miami, Okla., March 12.

Mrs. George Mummert, mother of *Dr. S. J. R. Murchison,* Fort Worth, died February 19, according to the newsletter of the Woman's Auxiliary to the Tarrant County Medical Society.

Announcement of the following births was made recently in the *Alumni Bulletin* of the University of Texas Medical Branch: girls to *Dr. and Mrs. Norman A. Monk,* Morton, Texas; *Dr. and Mrs. W. R. Stockdale,* Jasper; *Dr. and Mrs. T. A. Norris,* Port Arthur; *Dr. and Mrs. C. J. Fuchs,* Texas City; *Dr. and Mrs. D. A. Grant,* Fort Worth; and *Dr. and Mrs. Ralph Lane,* Lubbock, and a boy to *Dr. and Mrs. R. V. Price,* Fort Worth.

Dr. and Mrs. C. G. Shellenberger, Waco, announce the birth of a daughter.

From the Woman's Auxiliary to the Tarrant County Medical Society comes the announcement of the birth of girls to *Dr. and Mrs. James McBride, Dr. and Mrs. Jack Booth, Dr. and Mrs. Warren Knox,* and *Dr. and Mrs. Jack Brownfield.*

Meetings on Cancer May 15, 16

Meetings have been scheduled for May 15-16 in Houston by the University of Texas M. D. Anderson Hospital for Cancer Research.

The seventh annual Symposium on Fundamental Cancer Research will be devoted to "New Methods for the Study of Cells." The Cancer Pathology and Radiology Conference, presented with the cooperation of the University of Texas Postgraduate School of Medicine, will be on "Tumors of Lung and Pleura." The south central section of the College of American Pathologists will participate in the symposium and pathology conference.

The session on cytologic studies is being arranged by Dr. Robert C. Mellors, Department of Cytochemistry, Department of Experimental Pathology, Sloan-Kettering Institute, Memorial Hospital, New York. The pathology and radiology conference will be conducted by Dr. David A. Wood, professor of oncology (pathology) and director of the Cancer Research Institute of the University of California School of Medicine, and Dr. W. Edward Chamberlain, professor of radiology, Temple University Hospital, Philadelphia.

The fourth Bertner Foundation lecture will be given by Dr. Charles C. Huggins, professor of surgery, University of Chicago School of Medicine, on "The Control of Human Cancer by Hormonal Methods."

Further information may be obtained from Dr. William O. Russell, 2310 Baldwin Street, Houston 6.

BOARD EXAMINATIONS IN OBSTETRICS

The next scheduled examinations, Part II (oral and pathological) for candidates for certification by the American Board of Obstetrics and Gynecology, will be held at the Edgewater Beach Hotel, Chicago, May 17-24. Notice of the exact time of each candidate's examination will be sent him several weeks in advance of the examinations.

Applications for the 1954 (Part I) examinations are now being accepted and preferably should be in the hands of the secretary of the Board, Dr. Robert L. Faulkner, 2105 Adelbert Road, Cleveland 6, by August or September. Candidates applying for the Part I examination are required to list hospitalized patients for whom they have been solely responsible for the year preceding their applications, with diagnosis, pathologic diagnosis, nature of treatment, and end result.

New Hospitals and Clinics

Throughout the state new hospitals and clinics are being erected and furnished with the latest medical facilities.

Victoria's new Medical and Surgical Clinic, with complete clinical facilities for the general practitioner, was formally dedicated February 15. The center, owned by Dr. Andrew S. Tomb, has four office suites, an x-ray room, and a pharmacy.

Methodist Hospital in Dallas added 106 beds in a new $1,000,000 wing in January. Also, the new wing has administrative offices, a chapel, a library, and a Negro unit.

In Cleburne, a formal opening was held in February for the Johnson County Memorial Hospital's new 24-bed annex. In order to staff the hospital adequately, a Vocational Nursing School was begun in September, 1952.

Another new hospital is the $4,000,000 Driscoll Foundation Hospital for Children, which formally opened February 22 in Corpus Christi for the care of patients under 16 years of age whose families could not afford to pay for treatment. The hospital accommodates 110 patients and has an outpatient department, a 250-seat auditorium, and a school room for patients.

One of the first radioisotope departments in the southwest opened in the Methodist Hospital in the Texas Medical Center, Houston, in January, making available for the first time to private physicians radioisotopes for diagnosis and treatment. The opening of the new department is said to be the forerunner of an endocrine and metabolic department.

In Mineola, a modern California-style Williams Clinic building was formally opened February 22. It includes fourteen rooms and a solarium. Dr. James W. Williams is owner.

Construction of a $150,000 clinical unit of Western Clinic Hospital in Midland has been begun, and a hospital is to be added at a later date. The clinic will have no beds for patients, but it is to have two emergency rooms, an x-ray unit, offices, and laboratory facilities.

In Dallas, a two-story addition to the Oak Cliff Lions Health Center is being built. Ground-breaking ceremonies for a new 40-bed Mission Municipal Hospital were held in February. In Snyder, Cogdell Memorial Hospital is scheduled to be completed August 1.

University of Texas Medical Branch

Dr. A. W. B. Cunningham, former University of Edinburgh, Scotland, professor, has recently become a member of the faculty of the University of Texas Medical Branch, Galveston. He teaches and is doing research on arthritis and diseases of the joints.

Dr. A. Packchanian, professor of bacteriology and parasitology at the Medical Branch, addressed a three-day course for medical laboratory technicians in Austin February 5-7. His lectures, concerned with the newest methods of laboratory disease identification, were sponsored by the Texas State Department of Health.

Chauncey D. Leake, Ph. D., vice-president and dean of the Medical Branch, was speaker at an alumni reunion dinner March 2 in Houston. *Dr. Shirley S. Bowen* is president of the alumni association in Houston.

Frank B. Engley, Jr., Ph. D., associate professor of bacteriology and parasitology, is to go to Basle, Switzerland, this summer to work with other immunity specialists on skin grafting and blood transfusion problems. He also plans to attend the International Congress of Microbiology in Rome and to visit laboratories and schools in England, France, and Switzerland.

C. M. Pomerat, Ph. D., director, Tissue Culture Laboratory, took a special leave from the Medical Branch March 4-April 12 to participate in a London symposium; report research at Cambridge; attend a Columbus, Ohio, meeting of the Tissue Culture Association; lecture at Mt. Sinai Hospital and the University of Pennsylvania, Philadelphia; and attend meetings in Chicago. Dr. Pomerat has been directing special study in the neurosecretory functions of the anterior pituitary gland by *Dr. Walter Hild,* Department of Anatomy, University of Kiel, Germany, a Rockefeller Foundation Fellow.

Dr. Werner Kunast of Hamburg, Germany, has been appointed teaching and research fellow in Radiology at the Medical Branch.

The Nu Sigma Nu Lecture at the Medical Branch was given February 23 by Dr. Robert H. Kennedy of New York on "Traumatic Surgery."

Seven medical students participated in an exhibit of oil paintings, water colors, pen and ink drawings, and lithographs in February at The University of Texas Medical Branch. What is believed to be the first medical student graphic art exhibit to be held in the United States was arranged under the auspices of the Galveston Art League.

Dr. John H. Childers, associate professor of surgical pathology at the Medical Branch, was appointed chairman of the Galveston County unit of the American Cancer Society January 22 at the annual board meeting.

Dr. M. Lenz, clinical professor of radiology at Columbia University, was one of the Medical Branch's visitors in January. Others were *Dr. Wesley Washburn,* Yale University, and *Dr. Harry B. Friedgood,* associate professor of medicine, University of California, who is gathering material for a book on the philosophy and technique of medical education.

Molly R. Harrower, Ph. D., consultant in clinical psychology to the juvenile courts of New York City, gave a series of lectures and seminars at the Medical Branch March 20-21 on "Personality Appraisal."

The annual John O. McReynolds lecture at the Medical Branch was given March 31 by Dr. Frederick Cordes, professor of ophthalmology at the University of California Medical Center, San Francisco, on "The Evaluation of the Vision in the Diabetic." The lectureship was established by Col. F. W. Wozencraft, Dallas, in honor of the late Dallas ophthalmologist.

DR. WALL PRESIDENT OF OBSTETRICIANS

Dr. D. D. Wall, San Angelo, became president of the Texas Association of Obstetricians and Gynecologists February 14 in Fort Worth. Dr. G. F. Goff, Dallas, is president-elect; Dr. E. H. Marek, Yoakum, vice-president; and Dr. Carey Hiett, Fort Worth, secretary-treasurer.

Guest lecturer for the twenty-fourth annual program of discussions and speeches was Dr. Christopher J. Duncan, associate professor of gynecology at Harvard Medical School, Boston, whose topic was "The Ovarian Salvage at the Time of Routine Total Hysterectomy."

Also on the program were Drs. Burgess Sealy, May Owen, and Frederick C. Rehfeldt, all of Fort Worth.

The 1954 meeting will be held in Waco.

HOUSTON SOCIETY OF INTERNAL MEDICINE

The Houston Society of Internal Medicine was addressed by Dr. Robert W. Wilkins, chief of the hypertension clinic at Massachusetts Memorial Hospital, Boston, at the society's regular meeting February 13 in Houston.

Dr. Wilkins also conducted a scientific program on hypertension for doctors, which was sponsored by the Houston Heart Association and the Phi Beta Pi medical fraternity as a part of the observance of Heart Month in Houston.

Tri-State College of Surgeons Meeting

About a hundred surgeons from Texas, Oklahoma, and Arkansas attended a tri-state meeting of the International College of Surgeons in Dallas February 5-7. Founder of the College, Dr. Max Thorek of Chicago, professor of surgery at Cook County Graduate School of Medicine and surgeon-in-chief of the American Hospital of Chicago, addressed the College.

Other guest speakers included Drs. J. Grafton Love, Rochester, Minn.; Arthur Grollman, Dallas; James W. Nixon, San Antonio; Michael K. O'Heeron, Houston; Karl B. King, Dallas; and Earl Weir, Dallas. Dr. Fred B. Campbell, Kansas City, was moderator for a panel discussion on proctology. On the panel were Drs. Herbert Hayes, Houston; Paul M. Vickers, Oklahoma City; and George H. Thiele, Kansas City.

Also on the program were Drs. Weldon W. Stephen, Galveston; Neal Owens, New Orleans; Charles L. Martin, Dallas; James T. Mills, Dallas; Ralph R. Coffey, Kansas City; Andre B. Carney, Tulsa; and William F. Guerriero, Dallas.

Dallas surgeons conducting operative clinics were Dr. Albert D'Errico, neurologic surgery; Dr. King, urology; Dr. Sidney Galt and Dr. Mark L. Welch, general surgery; Dr. James T. Mills, plastic surgery; Dr. Curtice Rosser, proctology; Drs. Guerriero, V. A. Davidson, E. B. Mandel, and R. S. Rosenthal, gynecologic surgery.

Southwestern Medical School

S. Edward Sulkin, Ph. D., professor of bacteriology and director of the virus research laboratory at Southwestern Medical School in Dallas, has been conducting a series of tests as part of a world influenza study conducted by the United Nations World Health Organization.

At the annual meeting of Family Service of Beaumont January 23 Dr. David G. Hubbard, executive director of Southwestern's psychiatric foundation, spoke on "Is Mental Health Here to Stay?"

The Caruth Foundation has donated $7,620 to the Southwestern Medical Foundation to further the virus infection research of Dr. J. J. Quilligan, pathologist.

Louis J. Hexter has donated $1,000 to Southwestern for the establishment of the Victor Hexter Memorial Lectureship Fund in Psychiatry to be used to bring outstanding teachers of psychiatry to the school.

PHYSICAL MEDICINE ESSAY CONTEST

The American Congress of Physical Medicine and Rehabilitation is sponsoring an essay contest directed primarily to medical students, interns, residents, and graduate students in the preclinical sciences, physical medicine, and rehabilitation. Manuscripts, not exceeding 5,000 words on any subject pertaining to physical medicine and rehabilitation, must be submitted before June 1.

The winner will receive an engraved medal, a certificate, and an invitation to present his paper at the thirty-first annual session of the Congress in Chicago August 31-September 4.

The address is American Congress of Physical Medicine and Rehabilitation, 30 North Michigan Avenue, Chicago 2.

TEXAS SURGICAL SOCIETY

The spring semiannual meeting of the Texas Surgical Society was held in San Antonio April 6-7, with Dr. Witten B. Russ, San Antonio, a past president of the society, as principal speaker at the banquet.

Speakers and discussers on the scientific program included Drs. H. M. Richey, Waco; Albert W. Harrison, Galveston; Harry Spence, Dallas; Charles Hooks, Galveston; J. J. Hinchey, San Antonio; Andrew B. Small, Dallas; Paul North, McKinney; Robert S. Sparkman, Dallas; Gordon Madding, San Angelo; S. D. Coleman, Navasota; A. L. McMurray, Houston; Robert L. Sewell, Fort Worth; W. S. Lorimer, Jr., Fort Worth; Frank Selecman, Dallas; Frank Kidd, Jr., Dallas; Dudley Jackson, Jr., San Antonio; Dudley Jackson, Sr., San Antonio; R. J. White, Fort Worth; G. V. Brindley, Sr., Temple; L. J. Kleinsasser, Dallas; and Michael E. DeBakey, Houston.

By invitation the following doctors participated in the scientific program: S. S. Baird, Cleburne; E. W. Ware, Dallas; P. L. Day, San Antonio; and Oliver Cope, associate professor of surgery, Harvard University, Boston.

Papers were presented by the following members of the Brooke Army Hospital staff: Capts. Ward A. Soanes, Theodore H. Nicholas, George E. Omer, and Charles C. Pixley, and Cols. Claude C. Dodson, Warner F. Bowers, Milton S. Thompson, John W. Simpson, and Bernard N. Soderberg.

SURGEONS' TRAVEL CLUB

The Surgeons' Travel Club held its annual meeting in Houston and Mexico City February 26-March 4. In Houston, clinical and scientific programs were presented by the staffs of the M. D. Anderson Hospital for Cancer Research, The University of Texas Postgraduate School of Medicine, and the Baylor University College of Medicine. In Mexico City, programs were presented by members of the faculty of the University of Mexico College of Medicine and the Academy of Surgery.

A national group with membership limited to thirty-five, the club was organized in 1941 to promote advancement of the knowledge of surgery and the fellowship of surgeons.

Drs. George W. Waldron and R. Lee Clark, Jr., Houston, were hosts for the 1953 meeting.

AMERICAN PHYSICAL THERAPY ASSOCIATION

The thirtieth annual conference of the American Physical Therapy Association will be held in Dallas June 15-19 with the theme, "The Patient, His Evaluation and Program for Rehabilitation," being carried out in discussions by outstanding leaders in the fields of physical therapy, medical social work, physiology, psychology, and vocational guidance.

The conference is open to physicians, occupational therapists, nurses, medical social workers, and vocational guidance counselors upon presentation of professional membership cards.

Further information may be obtained from Doris E. Porter, Baylor Hospital, Dallas 1.

PLASTIC SURGERY SCHOLARSHIP CONTEST

Residents in training and plastic surgeons who have been in practice no longer than five years may enter the fourth annual scholarship contest of the Foundation of the American Society of Plastic and Reconstructive Surgery. Deadline for manuscripts, which must be the result of original clinical or laboratory research in plastic and reconstructive surgery, is August 1.

Two main prizes are six-month plastic surgical scholarships with active membership and full maintenance in a number of selected leading services.

A silver plaque or certificate of honorable mention is also offered for a winning essay to contestants active in practice of plastic and reconstructive surgery for more than five years.

Further information is available from the Award Committee, Dr. Jacques W. Maliniac, Chairman, 30 Central Park South, New York 19.

OBSTETRICS AND GYNECOLOGY COURSE

An obstetrics and gynecology postgraduate course was given April 13-17 by the Postgraduate Division of The University of Texas School of Medicine and the Department of Obstetrics and Gynecology. Guest speakers included Dr. Rudolph A. Bartholomew, professor of clinical obstetrics, Emory University School of Medicine, Atlanta, Ga.; Dr. William T. Black, chief, Department of Obstetrics and Gynecology, Baptist Hospital, Memphis, Tenn.; Dr. Leo J. Hartnett, assistant professor of clinical gynecology, St. Louis University School of Medicine, St. Louis; Dr. William O. Johnson, professor of obstetrics and gynecology, University of Louisville School of Medicine, Louisville, Ky.; Dr. Carl F. Moore, director of Division of Maternal and Child Welfare, Texas State Health Department, Austin; and Dr. Robert L. Newman, associate professor of obstetrics and gynecology, University of Kansas Medical Center, Kansas City, Kan.

The following University of Texas staff members were also on the program: Drs. Virgil C. Baxter, Bahige S. Bayoud, Willard R. Cooke, John J. Delany, and Daniel H. Eames.

TECHNOLOGISTS TO MEET MAY 1-2

The Texas Society of Medical Technologists will hold its annual convention May 1-2 in Austin for registered medical technologists, students in approved schools of medical technology, and other interested persons.

Speakers for the scientific program will include Lucille K. Georg, Ph. D., mycologist, Communicable Disease Center, Atlanta, Ga.; Dr. Wirt Smith, M. D. Anderson Hospital, Houston; Russell O. Bowman, Ph. D., associate professor of biochemistry, Baylor University College of Medicine, Houston; and Dr. Norman H. Jacob, pathologist, San Antonio.

Medical technologists who will present papers are Miss Judith Marston, M. T., ASCP, University of Texas School of Dentistry, Houston; Miss Mary Louise Maese, M. T., ASCP, El Paso; and Miss Hazel Cook, M. T., ASCP, graduate student in bacteriology at the University of Texas.

Seminars will be held in the Rh factor, serology of syphilis, public health bacteriology, and parasitology.

SOUTHWEST ALLERGY FORUM

The Southwest Allergy Forum will meet in Kansas City June 14-16, with all physicians interested in allergy invited.

Programs may be obtained from Dr. Orval R. Withers, 1418 Bryant Building, Kansas City 6, Mo.

The Forum was originally the Texas Allergy Association, organized at the 1938 annual session of the Texas Medical Association in Galveston. After four annual sessions, the geographic area was enlarged to include eight states, and the group became the Southwest Allergy Forum.

LIBRARY SECTION

LIBRARY REFERENCE SERVICE

A medical society exists for the advancement of medicine within the state it serves. The Library of the Texas Medical Association is desirous of serving every Texas doctor. The progress that is taking place in every field of medicine is astonishing. No doctor could be expected to keep abreast of all the advances in any field except perhaps his own. The *Excerpta Medica,* an outstanding abstracting publication divided into fifteen special sections, abstracts more than 2,000 of the world's estimated 7,000 medical journals. It would be impossible for any one doctor to have the time to check all the abstracts in medical literature, not to mention the cost.

The Library has available the various abstracting journals and books and the staff is willing to do the searching. Each doctor has his own specialty journals and the Library should be his source of additional material. The reference function of the Library is to make available material requested on any given medical subject. The staff will collect material, prepare bibliographies, verify references, and employ every means at its disposal to serve the doctors.

There is a reference service which is *not being used.* There is no additional cost as it is part of membership in the Texas Medical Association.

The following abstracting journals and books are available and are searched for each reference:

Excerpta Medica, 15 sections.
Quarterly Cumulative Index Medicus.
Index Catalogue of the Surgeon General's Office.
Current List of Medical Literature.
Yearbooks in the various specialities.
International Abstract of Surgery.
Abstracts of World Medicine.
Nuclear Science Abstracts.
Poliomyelitis Current Literature.
Cancer Current Literature.
Aureomycin Digest.
Medicina Fennica.

The Journal of the American Medical Association and the *American Review of Tuberculosis* are only two of the many journals that have abstract sections.

If a library is to be built rich in the field of medicine and worthy of the magnificent building housing it, the Library staff will need the cooperation of every doctor in the state.

Before discarding old medical journals, each doctor should consider the Library reference possibilities.

A new bookplate will be used to designate the donor of any volume. The bookplate also will be placed in all volumes purchased from the Library funds and will be so inscribed. The bookplate will have a picture of the Association building and will be inscribed "Memorial Library."

BOOKS RECEIVED IN MARCH

American College of Surgeons, Clinical Congress of the; Surgical Forum. Philadelphia, W. B. Saunders, 1951.

Chamberlain, E. Noble: *Symptoms and Signs in Clinical Medicine,* Baltimore, Williams and Wilkins, 1952.

Ciba Foundation: *Colloquia on Endocrinology,* vols. 1-4, New York, Blakiston, 1952.

Coca, Arthur F.: *Familiar Nonreaginic Food-Allergy,* ed. 3, Springfield, Ill., Charles C. Thomas, 1953.

Gold, Harry, and others: *Cornell Conferences on Therapy,* New York, Macmillan, 1952.

Hiller, Alma: *Practical Clinical Chemistry,* Springfield, Ill., Charles C. Thomas, 1953.

Krupp, Marcus A., and others: *Physician's Handbook,* ed. 7, Los Altos, Calif., University Medical Publishers, 1952.

Morton, Dudley J., and Fuller, Dudley Dean: *Human Locomotion and Body Form,* Baltimore, Williams and Wilkins, 1952.

Rhodes, A. J., and Von Rooyen, C. E.: *Textbook of Virology,* ed. 2, Baltimore, Williams and Wilkins, 1953.

Ropes, Marian W., and Bauer, Walter: *Synovial Fluid Changes in Joint Diseases,* Cambridge, Commonwealth Fund, Harvard University Press, 1953.

Russell, W. Ritchie: *Poliomyelitis,* Baltimore, Williams and Wilkins, 1952.

Seward, Charles: *Bedside Diagnosis,* ed. 2, Edinburgh, E. and S. Livingston, 1952.

Snow, William: *Roentgenology in Obstetrics and Gynecology,* Springfield, Ill., Charles C. Thomas, 1952.

Transactions of the Ophthalmological Society of the United Kingdom, vol. 72, London, Churchill, 1952.

Yearbook of Eye, Ear, Nose and Throat, Chicago, Yearbook Publishers, 1952.

Yearbook of Urology, Chicago, Yearbook Publishers, 1952.

REPRINTS OF ARTICLES NEEDED

Texas physicians are asked to send two reprints of their scientific articles to the Library of the Texas Medical Association. The Library staff is keeping a record of publications of each member of the Texas Medical Association and needs the cooperation of each physician in order to maintain an accurate record.

CONTRIBUTIONS TO LIBRARY

The following members and friends recently have donated material to the Library:

Mr. and Mrs. G. E. Bray, Austin, "Transactions of the Fifth Congress on Obstetrics and Gynecology," presented in memory of the late Dr. William M. Gambrell of Austin.

Dr. William R. Houston, Austin, medical books.

Dr. Alfred Lawrence Hathcock, Palestine, medical books and journals.

Mr. A. Howard Osburn, Austin, medical books.

Wharton-Jackson-Matagorda-Fort Bend Counties Medical Society, $25 to the Memorial Medical Library Fund in memory of Dr. Judson M. Andrews, Wharton.

An article entitled, "Medico-Economic Frontiers: Crime," which apears in the February, 1953, issue of the Lederle *Bulletin* (volume 18, no. 1), will interest members of the medical profession.

Southern Medicine and Surgery starting with the January, 1953, issue devotes itself to the interests of the general practitioner.

MOTION PICTURES FOR LOAN

Cancer: The Problem of Early Diagnosis

16 mm., sound, color, 30 minutes. (Courtesy, American Cancer Society.)

The film is designed as the first of a series of motion pictures to emphasize for the general practitioner the importance of early suspicion, accurate diagnosis, and effective treatment. Opening with a short sequence showing Billroth performing the first gastric resection for cancer of the stomach (1881), the film moves rapidly to the modern attack on gastric carcinoma. In succession each of the most deadly forms of cancer—for example, that of the stomach, breast, large bowel, cervix, and lung—is discussed. In each site the means of early suspicion, accurate diagnosis, and effective treatment are shown and the mortality with late diagnosis graphically contrasted with the mortality of early diagnosis. This film is of great interest and value to hospital staffs and general practitioners, as well as medical students.

Breast Cancer: The Problem of Early Diagnosis

16 mm., sound, color, 35 minutes. (Courtesy, American Cancer Society.)

Designed to promote earlier diagnosis of carcinoma of the breast, this film effectively demonstrates the parts played by "physician suspicion," careful examination, and reliance on surgical biopsy in arriving at an early specific diagnosis. After a brief historical introduction, the statistics of mammary cancer are discussed. Essential facts in the embryologic and later developmental processes in the breasts are shown clearly in animation, as are the cyclic changes associated with menstruation, pregnancy, and lactation. The production of cancerous lesions by the infiltrating type of growth is also shown by animation. The physical examination is illustrated in great detail, with emphasis on the elicitation of the earliest retraction signs. Methods of palpation and manipulation of the breasts in order to reveal conditions suggestive of carcinoma are amply illustrated. The need for gentle, thorough examination of both breasts, axillae, and supraclavicular fossae is stressed. The importance of systemic follow-up examinations at specific intervals to discover possible recurrence and metastases is outlined. The most important lesson to be learned from this film is that early tumor discovery with biopsy diagnosis is the key to success in treatment of breast cancer.

Gastrointestinal Cancer: The Problem of Early Diagnosis

16 mm., sound, color, 30 minutes. (Courtesy, American Cancer Society.)

One of the highlights of this motion picture is the photographic record of what can be seen through the proctoscope and gastroscope. Both normal and abnormal conditions of the esophagus, stomach, small intestine, large intestine, and rectum are reported. Office procedures for testing for anemia, occult blood, and achlorhydria are demonstrated. Stills from roentgenograms and actual fluoroscopic scenes illustrate abnormal changes. Roentgenographic study, the film concludes, is the physician's most reliable diagnostic procedure in the search for gastrointestinal cancer. The procedure may bring to light an early cancer located anywhere in the gastrointestinal tract—an early cancer and a curable cancer.

Uterine Cancer: The Problem of Early Diagnosis

16 mm., sound, color, 20 minutes. (Courtesy, American Cancer Society.)

The incidence of cancer of various sites in the female genital tract (International Classification) is given, with survival rates indicated for each. Symptomatology and aids in diagnosis are visually presented in animated drawings for each stage of cervical cancer, including stage 0. The role of cytology in early detection is stressed, its technique is visually described, and diagnostic criteria are illustrated. Papanicolaou sounds a note of caution in using the method in diagnosis, by indicating that a positive smear should be confirmed as a matter of routine by biopsy and tissue diagnosis. The Schiller test and methods of biopsy are included.

The film calls attention to the importance of a complete physical examination, bimanual examination, visual inspection of the cervix, rectal examination, and aspiration of the cul-de-sac, together with this simple method of securing cells from the cervical canal. Several case reports are shown to illustrate these points. It is presented entirely from the standpoint of early diagnosis of uterine malignancy and does not include a discussion of treatment. The film is highly recommended for the general practitioner, the advanced medical student, and hospital staffs.

Breast Self Examination

16 mm., sound, color, 15 minutes. (Courtesy, American Cancer Society.)

This film presents the subject of carcinoma of the breast with reference to early discovery of the tumor by the patient in a concise and sensible manner, clearly enough to be easily understood by a lay audience, yet it cannot fail to be interesting to physicians concerned with the earlier discovery of breast changes by their patients. Throughout the film the importance of the examination by the physician is repeated. A physician introduces the subject, teaches the woman the method of examination of her own breasts, and emphasizes the importance of periodic check-ups. It is impressed on the patient that, should she note any abnormality during the monthly self examination, her physician is the person to pass final judgment in the matter.

Self examination of the breasts once monthly, after the menstrual period, is advised, and a simple method of thorough inspection and palpation is taught. The approach is excellent, and the material is presented in a manner to avoid generating cancerphobia. It is made plain that not all lumps are carcinoma and that recourse to the physician and his diagnostic skill is reasoned caution, whereas self diagnosis represents unreasoning fear of cancer.

BOOK NOTICES

[1]A History of the Texas Medical Association, 1853-1953

PAT IRELAND NIXON, M. D., *San Antonio. 476 pages. $6. Austin, University of Texas Press, 1953.*

For many years thoughtful doctors have asked the question, "When will a history of Texas medicine be written?" In this year 1953, the centennial of the birth of organized medicine in Texas, it is fitting that the finishing touches have been placed upon a medical history of Texas, a history of the medical men in Texas from the organization of the Texas Medical Association in Austin in January, 1853, up through the annual meeting in Dallas in May, 1952, and reaching its climax with the dedication ceremonies of the new Library and Administration Building in September, 1952. In Houston this month, we will celebrate this centennial in the eighty-sixth annual meeting of the Texas Medical Association under the leadership of President Truman C. Terrell. Appropriate it is that this century of medical progress in Texas should culminate in the publication of a history of Texas medicine by Dr. Pat Ireland Nixon of San Antonio.

To be a historian, a man must be indefatigable in effort, prodigal with his own time and money, infinitely patient, and meticulous in detail. This prodigious work is a monument to these qualities in the author. When one reflects that, in these later years, a history of medical events could be written simply by consulting the records of the STATE JOURNAL, one can easily realize that the labor and travail came in running down the facts and figures of the early years of the Association and in separating fact from fiction in those times when the records were not so faithfully kept and reported and when gaps occurred in the chronicling of the affairs of the Association. No doubt the records of the last seventy-five years of this history were far more easily assembled and set down in print than were those of the first twenty-five. To the everlasting credit of the author, the account of these early years reads as well, or better, than that of the latter. Perhaps to all of us "distance lends enchantment."

Since the doctor is not a being set apart, but intimately bound up with the life and action of his time, it follows that this history is in one sense a history of Texas. The author has not failed to portray the effects of the times upon the doctor individually, nor the imprint that the doctor made upon contemporary history. Therefore, perhaps the greatest value of this work is that it is not simply a medical history. It is a history of trends in colonization, sociology, politics, economics, education. These trends are portrayed vividly as they are exemplified in the contemporary physician. He was influenced by them, but being a rugged individual, he also left his imprint upon them.

As we read the history of the Texas Medical Association we become proud of the contribution our doctors have made to medicine both on the state and the national scene. Again we are impressed with the fact that the development of the Texas Medical Association is coincident with that of the American Medical Association. We get a better idea of the number of Texas doctors who gained national recognition, both in organized medical affairs and in the initiation of new methods in medicine and surgery. Furthermore, the organization of the Woman's Auxiliary in the national association was due to Texas initiative, and the first president was the wife of a Texas physician. Again, in passing let it be remembered that the great movement for voluntary health insurance, now recognized as the best answer and thwart to socialized medicine began in Dallas, Texas, in 1929. Texas has furnished three American Medical Association trustees and one president of the A.M.A.

The history is well balanced. The author exhibits the happy faculty of giving each event the proper space that it deserves in such a work. His objectivity is remarkable, especially since, during a wide span of years, he himself participated in many of the events chronicled. The style is direct, succinct, and singularly free from verbosity, the bane of the twentieth century reader. The pattern of arrangement makes it possible to read the account of any one period or administration without losing continuity. Each annual convention is described according to a pattern of entertainment, addresses of visiting dignitaries and of the president, the work of the House of Delegates, and the scientific program. The stupendous amount of data relative to names of participants, titles, and subject matter of addresses, dates, and so forth has been painstakingly verified and then set down in a most readable account. Such a book is not simply a chronicle of events and personalities: it is an account of the life of the times, a faithful, accurate record for pleasant reading, for study and consultation at all times.

Texas should be proud of its medical history. It should be proud of this work. It should be humbly grateful for this unselfish chronicler, Pat Ireland Nixon.

[2]The Thyroid

THOMAS HODGE MCGAVACK, M. D., F.A.C.P., *Professor of Clinical Medicine, New York Medical College. With a Section on Surgery by* JAMES M. WINFIELD, M. D., F.A.C.S., *Director of Surgery, New York Medical College, and* WALTER L. MERSHEIMER, M. D., F.A.C.S., *Associate Professor of Surgery, New York Medical College, and a Section on History by* DOROTHY B. SPEAR, Ph. B., *Librarian, and* THOMAS HODGE MCGAVACK. *646 pages, illustrated. $13.50. St. Louis, C. V. Mosby, 1951.*

The text is partitioned into sections discussing (1) history, (2) anatomy, chemistry, and physiology, (3) morbid states, and (4) surgical conditions of the thyroid. In smooth-flowing English with excellent diction is recounted the history of the thyroid gland and its diseases. The physiologic interrelations of hypothalamus, anterior pituitary, and thy-

[1]*Allen T. Stewart, M. D., Lubbock.*

[2]*Ray G. Boster, M. D., San Angelo.*

roid are lucidly described with accompanying apt diagrams. They emphasize the thyroid stimulating hormone of the anterior pituitary, the suppressant effect of thyroid hormone both upon anterior pituitary and already secreted thyroid stimulating hormone, the suppressant effect of iodine upon both anterior pituitary and thyroid hormone, the blockade of iodine uptake by the thyroid cell by thiocyanates, the block of conversion of inorganic to nascent iodine by thiouracil, the block of iodination of amino acids by sulfonamides, and the overriding worth of combining iodine with thiouracil or with thiocyanates to produce by mass action sustaining quantities of thyroid hormone.

Throughout, the text is intricately documented with references, enhancing use of this work for reference. It is no fault of Dr. McGavack that his printers have failed to distinguish with type size or face his references from his textual statements, making reading awkward. That physiologic chapters begin with the author's lament over the complexity and difficulty in undertaking all available data and that "and so forth" is inappropriately inserted into a scientific work appear minor detractions. Clinical sections are departmentalized well and are excellently and not overly illustrated. The index appears readily usable. The surgical section smacks loudly of surgical sales talk.

That it is an up-to-date work on thyroid physiology and disease and that it has an excellent historical section warrant this volume's favorable review.

[3]Advances in Internal Medicine

WILLIAM DOCK, M. D., *Long Island College of Medicine, Brooklyn, and* I. SNAPPER, M. D., *Mount Sinai Hospital, New York. Fifth edition. 464 pages. $10.50. Chicago, The Year Book Publishers, 1952.*

This volume has a broad scope and apparently is intended for both internists and clinical investigators. The subjects reviewed are well covered and the bibliography is extensive. The articles are well written as to clarity, conciseness, and unity. The book itself will be of limited value to the general internist and general practitioner. It may be of inestimable value to workers in the particular fields covered. The book is not worth the $10.50 asked but should be priced at about $4.

The first section by Bass, "Diseases of the Pregnant Woman Affecting the Offspring," makes for interesting reading and has many points of value to the general internist and general practitioner.

The article by Bing on the "Catheterization of the Heart" is too condensed. His diagrams are descriptive and informative. If one happens to be working in this field, the author's bibliography is of great worth.

Blakemore's article on "Portal Hypertension and Its Treatment" is a review of all his work. Here is found a good discussion of the surgical treatment of portal hypertension and an excellent summary of interest to anyone in medicine.

Cathwright and Wintrobe's "The Anemia of Infection" is by far the best article in the book. It is informative, well written, and smoothly presented.

Gutman and Yu's "Gout, a Derangement of Purine Metabolism" is long, involved, and says too little. Everything said here has been said in the *American Journal of Medicine,* volume 13, page 744, 1952.

In the article by Lyons and Love on "Clinical Aspects of Ganglionic and Adrenergic Blocking Agents," the therapy advised is, at best, poor; the pharmaceutical aspects are well covered but the reviewer believes that Priscolline is unnecessarily over-balanced in the discussion.

The article by Mulder on "Aspects of the Influenza Problem" discusses just that, and it seems to be merely a space filler.

The article by Ragan on "Experiences with Adrenocorticotropic Hormone (ACTH) and Cortisone" adds nothing to our general knowledge except an excellent bibliography.

The article on "Abnormal Proteins in Myeloma" by J. Waldenstrom is of no practical value to anyone practicing medicine. It is of great value to those who work in the field of protein metabolism. It is a compendium on abnormal protein metabolism and a compliment to the author.

The entire book is well published. The format is well designed, and after reading the book, one is left with the idea that there is considerable material of practical importance to the general internist and the general practitioner. It is highly recommended for those doing special study.

[4]The Diagnosis and Treatment of Adrenal Insufficiency

GEORGE W. THORN, M. D., M. A. (Hon.), LL. D. (Hon.), *Hersey Professor of the Theory and Practice of Physic, Harvard Medical School, Boston; with the Collaboration of* PETER H. FORSHAM, M. D., M. A. (Cantab.), *Instructor in Medicine, Harvard Medical School, and* KENDALL EMERSON, JR., M. D., *Assistant Professor, Harvard Medical School. Second edition. A Monograph in American Lectures in Endocrinology. 182 pages. $5.50. Springfield, Ill., Charles C. Thomas, 1951.*

In 1949 the first edition appeared and in 1951 the first revision. Although the first manual was published before cortisone (compound E) was available in sufficient quantity for clinical evaluation, the revision has been so skillfully conducted that the new book adds only eleven pages while making more than seventy changes. Most of these were required to incorporate the newly available cortisone into treatment schedules, but several others representing either important advances in knowledge or refinements in diagnostic technique are noteworthy. Examples of the former are the use of the electrocardiograph tracing for the detection or confirmation of potassium deficiency and the encephalographic brain wave pattern for the regulation of hormone dosage in Addison's disease.

The introduction traces briefly the chronologic development of knowledge from Thomas Addison to the authors' contemporary investigators who have recently added so much in the isolation and mass production of the adrenocorticotropic hormone of the anterior pituitary and the adrenal steroids.

A feature of great practical importance and usefulness to the clinician is the series of treatment schedules covering management of the Addisonian patient in the various situations and complications that are apt to be encountered. The twelve programs include treatment during surgery on the adrenal glands and cases complicated by tuberculosis, the Waterhouse-Friderichsen syndrome, other endocrinopathies, pregnancy, and nephritis.

In the chapter on treatment of Addison's disease complicated by tuberculosis, the discussion of resistance to tuberculosis and adrenal deficiency on pages 114 to 120 is a valuable contribution and should be read by every physician who treats either disease; but current advances would now require the addition of para-aminosalicylic acid and streptomycin as a prophylaxis against spread of the tuberculous infection. Also it should be noted that in all the situations in which the author mentions the use of dihydrostreptomycin no reference is made to, nor warnings given regarding, the danger of germ resistance to the drug. (Of course, para-aminosalicylic acid is now given along with the streptomycins to prevent or delay germ resistance.)

[3]*L. G. May, M. D., Galveston.*

[4]*J. Edward Johnson, M. D., Austin.*

The warning against the use of the tuberculin skin test in cases "suspected [of tuberculous activity] on basis of history or physical examination" might be questioned. Rather than prohibit the use of so valuable a diagnostic agent, the warning should recommend the use of a high dilution of the reagent in preliminary tests to safeguard against danger in the extremely hypersensitive patient. It should be emphasized that high degrees of hypersensitivity may be encountered in any tuberculin positive reactor whether he harbors active or inactive infection, and the test in proper dilution does no harm to him. (The rationale of this view will be apparent when it is realized that the author's rule to withhold the test only from those "suspected on basis of history and physical examination" would permit it to be given occasionally to patients with active cases who would easily pass such a superficial survey.)

The amazing life-saving advantages of modern medical research have seldom been more impressive than are those revealed in the chapter on prognosis. Here we are told that in a group of 158 patients with Addison's disease, 48 per cent have survived an average of ten years, whereas prior to 1930, there would have been 50 per cent dead within the first year.

The author expresses appropriate and justifiable regret over the cost of hormone products necessary to save the lives of Addisonian patients and gives a price list to emphasize his point. In his closing paragraph he says: "It is ironical that, in this day and age when a great effort is being made to control and prevent disease, patients with Addison's disease must have their complete rehabilitation jeopardized by financial inability to obtain a well established form of therapy. . . ." However appropriate these remarks may have been in 1949, they need drastic revision now. The desoxycorticosterone acetate quoted in Dr. Thorn's 1949 edition was $6.50. Now it is $2. The quantity of cortisone he listed at $18 may now be purchased for $9. With these fantastic price reductions effected in the short span of three years, we may be assured that the American pharmaceutical industry is already well on its way toward a solution of this cost problem, which should not prove nearly so difficult as that of insulin or penicillin, already standing to the industry's everlasting credit.

[5]Manual of Electrocardiography

BENJAMIN F. SMITH, M. D., *Professor of Clinical Medicine, Baylor University College of Medicine; Member Active Staff and Chief of Electrocardiographic Laboratory, St. Joseph's Infirmary. 215 pages. $4.50. Houston, Elsevier Press, Inc., 1952.*

Dr. Smith's teaching manual of electrocardiography is a worthy addition to numerous recent works attempting to convey the meaning as well as the usefulness of electrocardiography to the student and the practicing physician. In correlating the electrophysics, anatomy, and physiology of the heart with the electrocardiographic patterns of various types of cardiac impulse initiation and conduction, the author is successful.

The discussion is also simple, well organized, well illustrated, and satisfying in regard to the various leads, the positions of the heart, the arrhythmias, the disturbances of conduction, cardiac hypertrophy; less so in regard to cor pulmonale, cardiac infarction, and pericarditis. An excellent, if unguided and humility-inspiring, teaching device allows the reader to correlate electrocardiograms with autopsy findings in some 23 cases. "Pen pictures of cardiology" are miniature scores of morbid complexes, with, however, therapeutic, not electrocardiographic, emphasis.

[5]*Arthur Ruskin, M. D., Galveston.*

In such a short presentation of electrocardiography it is not surprising that it was not possible to discuss in detail the newer theories of the origin of atrial arrhythmias, the Wolff-Parkinson-White syndrome, and the action of cardiac drugs in reference to the electrocardiogram. The necessary dogmatism avoids any serious pitfalls, however. Some chapters, for example, the one on acute cor pulmonale, are frankly derivative—but from the best authorities.

The aim, namely, to present in simple and integral form the latest interpretative ideas on electrocardiography and their clinical correlations, without atomistic pattern dissection, is well accomplished by the author.

[6]Cardiac Therapy

HAROLD J. STEWART, M. D., *Associate Professor of Medicine, Cornell University Medical College, New York; Head of Division of Cardiology, Department of Medicine, New York Hospital-Cornell Medical Center. 622 pages. $10. New York, Paul B. Hoeber, Inc., Medical Book Department of Harper and Brothers, 1952.*

This is a comprehensive and well written book covering all aspects of treatment of cardiac disease. The book is highly practical, giving details of various types of treatment for each type of disease discussed. It is completely up to date, including detailed discussions on anticoagulant therapy, Pronestyl and its use in arrythmias, and other new cardiac drugs.

The author usually gives his attitude about any controversial matter, and follows this with a discussion of other attitudes or viewpoints, quoting literature when necessary.

I would take exception to a few points in his discussions. For example, I do not believe that the digitalizing dose is the same for all patients, as he suggests, but rather is affected, in my opinion, by age, weight, and perhaps some unknown factors of which we are not yet conscious. In addition, I do not believe it is necessary to limit fluids in any patient, provided the patient's sodium intake is adequately restricted, for in the absence of excess of sodium no edema will form.

In spite of these few points of difference, I feel this is an excellent treatise on the subject of treatment of cardiac disease and highly practical from the standpoint of the person dealing with these problems, including many fine details frequently omitted from the usual textbooks. This is possible because the discussion of diagnosis and other subjects is limited, the emphasis being placed upon therapy.

The last few chapters of the book are concerned with special problems of heart disease, such as cardiac disease in surgical patients, in the aged, and in pregnancy. This is an entertaining and well written, comprehensive piece of work which should be extremely helpful to the average physician.

[7]Radiologic Diagnosis of the Lower Urinary Tract

DONALD E. BEARD, M. D., *Assistant in Urology, Emory University School of Medicine, Atlanta;* WILLIAM E. GOODYEAR, M. D., *Assistant in Urology, Emory University School of Medicine;* and H. STEPHEN WEENS, M. D., *Professor and Chairman, Department of Radiology, Emory University School of Medicine. 143 pages. Springfield, Ill., Charles C. Thomas, 1952.*

The purpose of the book is to present and diagnose diseases and conditions of the lower urinary tract, principally by roentgenography, and to serve as a guide for urologists, radiologists, and general practitioners.

The authors review the use of cystography and urethrography, from its first use by Von Zeissel in 1902 to the pres-

[6]*Maurice M. Scurry, M. D., Dallas.*
[7]*A. J. Ashmore, M. D., Corpus Christi.*

ent time, enumerating the different contrast media used. There is a good chapter on the anatomy of the bladder and urethra as well as the technique for cystography and urethrography. They state: "These methods are not proposed as the only method of diagnosis of lower urinary disease; nor is it contended that they are the best methods, but they are to be considered as a valuable adjunct to the other methods of diagnosis." The anatomy of the lower urinary tract and bladder is well covered, as well as the different methods of preparation of the patient and the different techniques employed for the roentgenograms.

The chapter on fascial plains and extravasation is timely, and it is in these conditions that urethrography plays its most important part.

The final chapter, "Urethrography and Cystography in Children," covers practically all of the pathologic conditions that could be studied by this method and is a method easily carried out by the average physician when there is no available cystoscopist.

In general, this is a well written, practical book and should be of great value to the general practitioner, as well as the urologist and radiologist.

[8]Research in Endocrinology

AUGUST A. WERNER, M. D., *and Associates, Assistant Professor of Internal Medicine, St. Louis University School of Medicine, St. Louis. Edited by* AL R. SCHMIDT, *City Editor, Belleville Daily Advocate, Belleville, Ill. 285 pages. St. Louis, Von Hoffman Press, Inc., 1952.*

It is somewhat startling on opening a medical book to find spread over the first seventy pages a eulogy of the author. A preface by the editor, a grateful patient, suggests that biographical material about those who make important contributions to human progress are often lost to future generations. One must assume that the first seventy pages were written by the editor since it is inconceivable that the author would have the temerity to describe himself and his work in such unrestrained language. However, these biographical chapters are not signed. The book's author is recorded in several places as August A. Werner, M. D., and Associates, and in the acknowledgment the editor is thanked merely for constructive and helpful assistance. The last 215 pages consist of reprints of articles on ovarian hypofunction, involutional melancholia, the male climacteric, cryptorchidism, and mongolism. Though they do represent important contributions, they are all ten to twenty years old, and their present value is mainly historical. In fact, the entire purpose of the book seems to be to make certain that the position of the author as an outstanding endocrinologist is not overlooked.

[9]The Oculorotary Muscles

RICHARD G. SCOBEE, M. D., F.A.C.S., *Assistant Professor of Ophthalmology, Washington University School of Medicine, St. Louis. Second edition. 512 pages. $11. St. Louis, C. V. Mosby Company, 1952.*

A review of this book in the TEXAS STATE JOURNAL OF MEDICINE is done with a special feeling of reverence and sadness. Reading this book—now generally accepted as standard work—we remember that the author was a native Texan, received his first training in ophthalmology in Texas, and built much of the foundation to this book working in Texas for the Air Force during the war. Our pride is overshadowed by sadness caused by the death of Dr. Scobee in 1952, barely after publication of the second edition. He was only 37 years old when he was taken away.

The book contains many new features incorporated since its first edition. Space does not permit to enumerate all changes and additions; the reader will find them in the preface. As an example, the entire section on treatment was rewritten and incorporated more than the general principles found in the first edition.

The book is a rare combination of elementary information for the beginner and of refined knowledge for the expert. The reader will notice that the book was originally written for teaching and postgraduate students in ophthalmology; simple rules of the thumb for the novice have not been omitted. On the other hand, the mature ophthalmologist will be delighted by many fine items for his use. He will like the sound anatomic approach of the author; many statistical answers in the heterophoria chapter will not be found in any other work on this subject. The reviewer was particularly impressed by the logic which never fails to accompany the discussion of any subject throughout the book. This attitude is best illustrated by the following quotation of the author himself: "An answer backed by sound reasoning should be available for the majority of cases."

This book will continue to be a standard work for any ophthalmologist and will inspire every student of ocular muscle problems.

[10]Studies in Visual Optics

JOSEPH I. PASCAL, O.D., M. D., *Licentiate in Optometry and in Medicine by the University of the State of New York; Director of Eye Department, Stuyvesant Polyclinic; Lecturer in Ophthalmology, New York Polyclinic Medical School and Hospital. 800 pages. $12.50. St. Louis, C. V. Mosby, 1952.*

This book is a comprehensive review of the subject, including much old material, lucidly presented, and certain new ideas which the author has accumulated in forty years of teaching.

The highly technical subject matter involves considerable knowledge of mathematics, physics, physiology, and psychology; consequently the book is not easy reading. However, the theories and facts are presented in a concise and lucid manner for one who cares to delve therein.

I would particularly recommend this book for the student in ophthalmology, preparing for practice or for the Board examination, and to others interested in scientific research along visual optics lines.

[11]Practical Dermatology for Medical Students and General Practitioners

GEORGE M. LEWIS, M. D., F.A.C.P., *Professor of Clinical Medicine (Dermatology), Cornell University Medical College; Secretary, American Board of Dermatology and Syphilology. 328 pages. $7.50. Philadelphia, W. B. Saunders Company, 1952.*

The new text by Dr. Lewis meets a long awaited need. Designed for medical students and general practitioners, the book is successful in weeding out the chaff and producing a brief, concise, well illustrated text.

The entire field of dermatology is surveyed adequately. Particular attention is concentrated on the most common skin diseases, acne, seborrhea, atopic skin diseases, contact dermatitis, eczema, and the pyodermias. Most effective is the grouping of related diseases. Here again Dr. Lewis has demonstrated his ability to organize and present his material to make an indelible impression on the reader's mind. One recalls the excellent arrangement of the earlier "Medical Mycology" by Lewis and Hopper.

[8]*Branch Craige, M. D., El Paso.*
[9]*Otto Lippmann, M. D., Austin.*
[10]*Thomas J. Vanzant, M. D., Houston.*
[11]*Earl R. Cockerell, M. D., Abilene.*

None of the new approaches to dermatologic problems has been omitted, but the dependability of tried and trusted remedies is reiterated. Use of ammoniated mercury ointment in 5 per cent strength or less for the pyodermias is recommended. This drug is a sensitizer, but sensitization does not deprive the patient of a drug that might later be used as a lifesaver, as is the case in the indiscriminate topical use of penicillin and sulfonamides. Newer drugs, with action similar to ammoniated mercury, that may be substituted include bacitracin and neomycin. Altogether, treatments recommended are conservative but not to a fault. The importance of wet dressings, soothing lotions, and bland pastes in the acute dermatoses is emphasized. Skin tests in urticaria and in disseminated neurodermatitis are regarded as useless.

Caution is urged in the use of ACTH and cortisone for the relief of benign, self-limited dermatoses. Any experience with the rebound effect after discontinuance of these drugs will prove this advice worth heeding.

The use of roentgen therapy is a specialized field. Dr. Lewis advises that this therapy be administered only by dermatologists who have been specially trained for this work and who operate accurately calibrated machines.

This book will prove of great interest and value to the general practitioner who is confronted many times with skin problems, especially the common ones. Nor will the dermatologist fail to profit from reading a text so well organized and presented.

[12]The Metabolic Response to Surgery

FRANCIS D. MOORE, M. D., *Moseley Professor of Surgery, Harvard Medical School, Boston; and* MARGARET R. BALL, A. B., *Department of Surgery, Harvard Medical School; Metabolic Diagrams by* MILDRED B. CODDING, M. A., *Surgical Artist, Department of Surgery, Harvard Medical School; Edited by* MICHAEL E. DEBAKEY, M. D., *Houston, and* R. GLEN SPURLING, M. D., *Louisville, Ky. A Monograph in American Lectures in Surgery. 156 pages. $7.50. Springfield, Ill., Charles C. Thomas, 1952.*

This monograph is an excellent progress report on a long time research project with the admirable purpose of establishing some paths with sign posts in the wilderness of new therapeutic methods in surgery. The authors are eminently qualified researchers with wide support and assisted by such a large team that they hope to begin establishing a baseline for modes of expression and presentation for researchers in the fields of fluids, electrolytes, foods, and hormones. Some standards of reporting in the field are necessary before the practitioner can grasp the essentials. The authors recognize that before the ultimate goal of doing the most good for the largest number of patients can be approximated, the practitioner of surgery must have such basic understanding of these problems that he can confidently treat a high percentage of serious traumas and surgical patients without a flame photomoter. The explanation of methods of presentation and charting, terminology and interpretation is simple, basic, and adequate.

There are two key words in this book: "response" and "balance." Different categories of normal and abnormal responses are described and illustrated by enough case histories and excellent graphs to be informative but not enough to be boring. The section on facts and corollaries helps the clinical surgeon establish balanced thinking about his patient. After surgery or trauma there are certain natural imbalances, and this section well illustrates the expected variables in different types of patients and responses to trauma. The futility and even danger of progressive attempts artificially to maintain so-called normal values in the early convalescent period is stressed. The "natural history" of convalescence cannot be safely forgotten as the over-zealous surgeon is prone to do.

Study of this well-written and easy-to-read volume will point the way for the practicing surgeon and help balance his thinking by the realization that he can adequately treat the dangerously sick patient without making every one an investigative problem.

[12]*R. Gayle Spann, M. D., Corpus Christi.*

[13]Brain Surgeon—The Autobiography of William Sharpe

271 pages. $3.75. New York, The Viking Press, 1952.

The life story of William Sharpe is a quixotic account of the adventures of a self assured, dogmatic man. His recounting of his early amours makes enticing reading, though I would venture to say that few embryo physicians could engage in all the activities of the vigorous William Sharpe and still make $50,000 just in tutoring, even at Harvard. The experiences of a year of practice in China are interestingly and excitingly depicted.

His perseverance in the attempt to do something for "cerebral palsy" patients is certainly the dominant neurosurgical interest and does him credit, but the fixed idea that every case was due to hemorrhages at birth is too dogmatic to be of value. To refuse surgery unless permission for an autopsy was granted prior to the operation is scientifically justifiable but is too harsh a procedure to be generally acceptable.

One usually remembers impressions of conversations of many years before, but to quote them verbatim is ludicrous. Sharpe quotes not only one but many different doctors. This is the character of the man, however, and to him impressions are apparently the same as facts.

Sharpe has led an exciting life—especially in his earlier years, and the book can be recommended for enjoyable reading. It will perhaps rank high as an engaging adventure story, not only to the layman but even to the physician. There are too many scientific inaccuracies to entitle this book to serious consideration as a work having any worthwhile neurosurgical value.

[14]The Pharmacology of Anesthetic Drugs

JOHN ADRIANI, M. D., *Director, Department of Anesthesiology, Charity Hospital, New Orleans, and Professor of Surgery, Tulane University School of Medicine, and Associate Clinical Professor of Surgery, Louisiana State University School of Medicine. Third edition. 179 pages. $9.50. Springfield, Ill., Charles C. Thomas, 1952.*

The first edition of this outline of pharmacologic facts relating to drugs used in anesthesiology filled a need of students and practitioners alike.

The present third edition has been rewritten and enlarged to include, not only the basic principles and fundamentals which have remained unchanged, but also the accumulated knowledge of the past ten years. The well known volatile and nonvolatile anesthetics are summarized in detail, as well as such drugs as barbiturates, hologenated derivatives, bromine and magnesium salts, opium derivatives, and similar synthetic alkaloids. In addition, curare and other muscle relaxing agents are summarized, together with stimulants, antedotes, and adjuncts to anesthesia. Local and regional anesthetics are summarized also.

As was said of previous editions of this book, "In no other book can one find so many specific facts and useful knowledge on the whole field of anesthetic drugs." This is the most extensive and complete compilation of pharmacologic facts relating to anesthesiology ever presented.

[13]*Jack S. Woolf, M. D., Dallas.*
[14]*L. F. Schuhmacher, Jr., M. D., Houston.*

ORGANIZATION SECTION

AMERICAN MEDICAL ASSOCIATION

U. S. Department of Health, Education, and Welfare Approved

The House of Delegates of the American Medical Association, called to meet in special session in Washington, D. C., March 14, unanimously adopted a report of the Board of Trustees supporting President Dwight D. Eisenhower's plan to create a new Department of Health, Education, and Welfare. The Reorganization Plan No. 1 of 1953 would provide for a cabinet secretary to head the new department and for a special assistant in charge of health activities; it is anticipated that Mrs. Oveta Culp Hobby of Houston, now Federal Security Administrator, would be elevated to the secretaryship.

In approving the three-pronged department, the House of Delegates considered the arguments not only of President Eisenhower and Senator Robert A. Taft, who appeared before the assemblage, but also of Representative Walter Judd, M. D., of Minnesota, and of Drs. Louis H. Bauer, Elmer Henderson, and Dwight H. Murray, high officials in the AMA. Among the arguments were the following points: (1) This is the first proposal to recognize medicine at the top level in a proposed department. (2) Organizationally it is an improvement over the Federal Security Agency in providing for medical programs. (3) It would give the new secretary greater authority in placing new people in policy-making jobs.

The report adopted by the House of Delegates merely called the proposed plan of reorganization "a step in the right direction," reaffirming the traditional stand of the AMA in favor of an independent Department of Health and its right to make recommendations for further amendment of existing law to press for such an independent department if the present plan fails to advance and protect health and medical science and to keep them free from political control.

TEXAS MEDICAL ASSOCIATION

AAPS Contest Winners Announced

Janice Hazelwood, Palestine, is state winner in the essay contest sponsored nationally by the Association of American Physicians and Surgeons and in Texas by the Texas Medical Association and its Woman's Auxiliary. First prize of $100 will go to Miss Hazelwood. Second prize of $50 will go to Joan Carlisle, Henderson, with third prize of $25 to Marianne Picton, Port Arthur, and fourth prize of $15 to Carolyn Booth, Baytown. Six honorable mention prizes of $10 each were won by Gene Hufford, Wichita Falls; Adell Gambrell, Wichita Falls; Cynthia Garbrecht, El Paso; John Sanders, Houston; James Brightman, Sherman; and Ann Downing, Wichita Falls.

Mrs. A. O. Severance, San Antonio, has been Auxiliary Essay Contest Chairman, and Drs. Mal Rumph, Fort Worth, and Charles D. Reece, Houston, have represented the AAPS in Texas for the contest. The state prizes were awarded by the Texas Medical Association. The top three essays will be eligible for the national contest in which $1,000 is offered for the best manuscript.

THANKS FROM HOTELS COMMITTEE

The local Hotels Committee for the Texas Medical Association annual session, which is composed of Dr. J. T. Billups, chairman; Dr. C. A. Dwyer, Dr. C. Marshall Ashmore, Dr. Mavis P. Kelsey, and Dr. Kenton R. Phelps, all of Houston, wishes to express its appreciation for the patience and consideration of members of the Association in their efforts to secure hotel accommodations during the annual session. There have been many problems that have arisen incident to getting everyone comfortably housed. The committee realizes that some have been temporarily inconvenienced, but every effort has been made to see that those wishing to attend the session will have a place to stay.

COUNTY SOCIETIES

Bexar County Society

January 13, 1952

T. C. Terrell, Fort Worth, president of the Texas Medical Association, addressed the first official installation ceremony to be held by the Bexar County Medical Society in its 100-year history. Approximately 150 members and guests attended the inaugural dinner January 13 in San Antonio.

New president is E. W. Coyle; Merton M. Minter is president-elect. Other officers follow: M. A. Childers, vice-president; Dean Jones, treasurer; W. W. Sawtelle, secretary; and O. R. Hollan, editor of the society's *News Letter*.

Dr. Terrell discussed "Our Job in 1953," with stress on revitalization of interest in the county medical society, the effort to be leaders in community health matters by work through health departments of the city and county, and the establishment of good public relations. He warned of impending national legislation which may be "pushed through" by backers of socialized medicine.

Brazoria County Society

January 8, 1953

Joe S. Montgomery of Angleton was elected president of the Brazoria County Medical Society January 8 in Freeport. William D. Nicholson, Freeport, is the new vice-president; Carlos E. Fuste, Jr., Alvin, secretary; and John S. Caldwell, Jr., Velasco, treasurer. Serving as censors are William C. Holt of Angleton, Robert C. Miller of Lake Jackson, and Roger M. McCary of Freeport.

Committee chairmen elected follow: M. Warren Hardwick, Angleton, program; Ralph E. Gray, Lake Jackson, tuberculosis; J. Milton Laughlin, Sweeney, medical jurisprudence and public relations; John C. O'Leary, Lake Jackson, medical advisory on poliomyelitis; Roger M. McCary, advisory to state public health and welfare; Dr. Nicholson, procurement and assignment; A. O. McCary, Freeport, civil defense; and Dr. Holt, blood banks.

February 26, 1953

(Reported by Carlos E. Fuste, Jr., Secretary)

Differential Diagnosis of Poliomyelitis in Preparalytic and Paralytic Periods—John E. Skogland, Houston.

Dr. Skogland gave the above address to twenty members of the Brazoria County Medical Society at its regular dinner-meeting February 26 in Freeport.

Brazos-Robertson Counties Society

February 17, 1953

G. V. Brindley, Temple, spoke on chest wounds and how to handle the injuries at the regular meeting of the Brazos-Robertson Counties Medical Society at Hearne February 17.

Joseph Cox, president, presided; Jack Marsh, program chairman, introduced the speaker. Approximately sixteen members attended.

Colorado-Fayette Counties Society

December 17, 1952

The Colorado-Fayette Counties Medical Society held a regular monthly meeting December 17 at Weimar. James H. Wooten, Jr., of Columbus was elected president. Other newly elected officers are Edward T. Williams, La Grange, vice-president; August J. A. Watzlavik, Schulenburg, secretary-treasurer; and Lyman E. Ihle, Schulenburg, and Willis G. Youens, Weimar, delegate and alternate respectively.

Dallas County Society

January 13, 1953

Mr. Louis B. Seltzer, editor of the Cleveland *Press,* was guest speaker at the annual installation dinner of the Dallas County Medical Society January 13. Mr. Felix McKnight, managing editor of the Dallas *Morning News,* introduced the speaker.

Mr. Seltzer urged the physicians to make themselves an integral part of the community and to be useful apart from their professional activity.

In urging the group to accept civic responsibility he stated, "We in America, the 165,000,000 of us, are moving, I believe dangerously, toward the one thing which would jeopardize our rightful existence—deterioration of moral standards and subversion of religious principles.

"How long this continues depends entirely on the men and women of America, whether they are willing to undertake . . . the chore of being citizens in this great country."

Mr. James F. Chambers, Jr., vice-president and general manager of the *Daily Times-Herald* in Dallas, presented the speaker a leather briefcase in the name of the Dallas County Medical Society.

Past presidents of the Dallas County Society were honored at the dinner, and received certificates and medal emblems in appreciation of the service to the society.

Charles L. Martin was master of ceremonies and installed the new president, Jack G. Kerr. Other new officers are R. G. Carpenter, vice-president; J. B. Howell, treasurer; W. W. Fowler, secretary; and Frank Selecman, president-elect.

February 10, 1953

(Reported by W. W. Fowler, Secretary)

Surgical Experiences with Mammary Carcinoma—John V. Goode, Dallas.

Dr. Goode presented the above study of 270 private patients to the Dallas County Medical Society February 10 in Dallas. James A. Martin led a discussion. Fourteen new members were introduced.

Ector-Midland-Martin-Howard-Andrews-Glasscock Counties Society

Officers of the Ector-Midland-Martin-Howard-Andrews-Glasscock Counties Medical Society are William A. Wiesner, president, and Donald Hugh Mullins, secretary-treasurer. D. L. Greenlees is chairman of public relations.

Hamilton County Society

Hamilton County Medical Society's new officers are C. C. Cleveland, Hamilton, president; Homer V. Hedges, Hico, vice-president; Robert A. Kooken, Hamilton, secretary-treasurer; and Dr. Hedges and W. F. Hafer, Hico, delegate and alternate.

Harrison County Society

January 9, 1953

William F. Mengert, chairman of the Department of Obstetrics and Gynecology at Southwestern Medical School of The University of Texas, Dallas, addressed a meeting of the Harrison County Medical Society January 9 in Marshall.

Hill County Society

February 13, 1953

Nine Tumors of the Face—Edmund Walsh, Fort Worth.

The Hill County Medical Society met February 13 in Hillsboro to hear the above paper by Dr. Walsh.

Kerr-Kendall-Gillespie-Bandera Counties Society

January 13, 1953

(Reported by Russell E. Guill, Secretary)

Emergency Pediatric Conditions Requiring Surgery—Bernard T. Fein and Albert Fischer, San Antonio.

The Kerr-Kendall-Gillespie-Bandera Counties Medical Society met January 13 in Fredericksburg to see slides and hear a lecture on the above program.

New officers are Charles C. Jones, Jr., Kerrville, president; H. C. Day, Boerne, vice-president; Russell E. Guill, Kerrville, secretary; and Hugh Drane, Jr., Kerrville, treasurer.

Lamar County Society

February 5, 1953

W. G. Evans, Dallas neurosurgeon, was guest speaker at the Lamar County Medical Society meeting February 5 in Paris. Illustrating his lecture with colored slides, Dr. Evans spoke on different phases of neurosurgery.

LaSalle-Frio-Dimmit Counties Society

March 17, 1953

(Reported by Marion P. Primomo, Secretary)

The LaSalle-Frio-Dimmit Counties Medical Society met March 17 in Dilley to hear Bernard T. Fein, San Antonio, present an illustrated lecture concerning allergic manifestations in general practice, their diagnosis and treatment.

Dr. Fein was introduced by John Crawford, Carrizo Springs, program chairman. Clyde Myers, Cotulla, presided.

Limestone County Society

Limestone County Medical Society's new officers are Thelbert R. Wilson, Groesbeck, president; G. Conwell Smith, Jr., Mexia, vice-president; and Stanley Cox, Groesbeck, secretary.

Lubbock-Crosby Counties Society

February 3, 1953

(Reported by Frank C. Goodwin, Secretary)

Recent Changes in Therapy of Tuberculosis—Daniel E. Jenkins, Houston.

After the regular business meeting of the Lubbock-Crosby Counties Medical Society February 3 in Lubbock, Dr. Jenkins, associate professor, Baylor University School of Medicine, Houston, presented the above paper with lantern slides.

McLennan County Society

The following officers of the McLennan County Medical Society were recently elected: Maurice C. Barnes, president; Milton Sparks, vice-president; John E. Talley, secretary-treas-

urer; Howard Dudgeon, Jr., and Neill O. Simpson, delegates; and H. H. Trippet and B. F. Roche, alternates.

Committee chairmen are J. R. Shipp, public relations; T. M. Oliver, medical jurisprudence; and Robert J. Hanks, tuberculosis.

Medina-Uvalde-Maverick-Val Verde-Edwards-Real-Kinney-Terrell-Zavala Counties Society

B. L. Burditt of Del Rio is the new president of the Medina-Uvalde-Maverick-Val Verde-Edwards-Real-Kinney-Terrell-Zavala Counties Medical Society.

Hershall La Forge, Uvalde, is the vice-president; Raul Montemayor, Eagle Pass, secretary-treasurer; R. A. Eads, Uvalde, delegate; and J. D. Williamson, Castroville, alternate.

Nolan-Fisher-Mitchell Counties Society

February 17, 1953

About twenty members of the Nolan-Fisher-Mitchell Counties Medical Society took part in Sweetwater in the telephone postgraduate broadcast sponsored by the Texas Medical Association February 17. The program on peptic ulcers was presented over loud-speakers at the meeting and was illustrated with slides and drawings. George N. Irvine, Jr., San Angelo, was guest moderator and conducted the discussion locally.

W. K. Cowan, Colorado City, presided over the meeting.

Tarrant County Society

January 6, 1953

Hobart O. Deaton was master of ceremonies at the inaugural banquet of the Tarrant County Medical Society in Fort Worth January 6. Approximately 350 members, guests, and officials of the Texas Medical Association attended. Honor guests were twenty-one past presidents.

Mr. Dan Smoot, Dallas, a member of Facts Forum, spoke on "What Is Americanism?"

January 20, 1953

Discussion of the World Medical Association Conference in Athens, Greece—Frank Schoonover, Jr., Fort Worth.
Arterial (Aortic) Embolism:
Medical Aspects—Joseph McVeigh, Fort Worth.
Surgical Aspects—R. J. White, Fort Worth.

Colored slides of Athens, presented by William Crawford at the Tarrant County Medical Society meeting January 20, accompanied the above discussion by Dr. Schoonover. The second part of the program was a case report with a statistical review of aortic embolism and the surgical treatment.

February 3, 1953

Diagnosis and Treatment of Anxiety Heart Patients—Dan Chapman, Houston.

Honoring the Johnson County Medical Society, the Tarrant County Medical Society met February 3 in Fort Worth to hear the above program by a professor of medicine at Baylor University. Ninety members and eight visitors attended.

Tom Green-Eight County Society

January 5, 1953

(Reported by T. G. Coleman, Secretary)

Use of Radioactive Isotopes in Medicine—J. R. Maxfield, Jr., Dallas.

Thirty-six members attended the first meeting under the new officers of the Tom Green-Eight County Medical Society January 5 in San Angelo. After the above program was presented, committee appointments were read. They are T. G. Coleman, chairman of program and scientific work; Lloyd R. Hershberger, cancer; F. M. Spencer, medical advisory; Jerome Smith, military affairs; M. W. Everhart, crippled children; H. M. Anderson, public relations; and V. E. Schulze, hospitals.

Other committee chairmen are E. C. Winklemann, mental health; W. D. Anderson, tuberculosis; Gordon Pilmer, athletics; F. T. McIntire, indigent care; Carl A. Kunath, indigent clinic; and Dr. Hershberger, annual medical meeting. Joe L. Cornelison and Lacey Smith were appointed to the Board of Health.

The child welfare committee is composed of George Nesrsta, A. E. Landy, and Harry Round. Dr. Coleman is publicity chairman.

March 2, 1953

(Reported by T. G. Coleman, Secretary)

Thirty-two members of the Tom Green-Eight County Medical Society heard a talk by Mr. W. E. Syers, Public Relations Counsel for the Texas Medical Association, at their monthly meeting March 2 in San Angelo. He advised the society to set up at least one or two projects in the near future and pledged full support of his office.

Travis County Society

December 16, 1952

The following newly elected officers of the Travis County Medical Society will assume their duties in May: John F. Thomas, president; Darrell B. Faubion, vice-president; C. H. McCuistion, secretary-treasurer; C. P. Hardwicke, delegate; and David O. Johnson and M. Allen Forbes, Jr., alternate delegates.

The main new business at the Austin meeting December 16 was the passage of a resolution to sponsor a talk by Mrs. Marjorie Shearon, Washington legislative analyst.

February 17, 1953

February 17 the Travis County Medical Society was the live audience for a statewide telephone broadcast sponsored by the Texas Medical Association. Tate Miller, Dallas, acted as moderator for the program entitled "Peptic Ulcer—Modern Concepts." Also on the program were E. E. Muirhead, Dallas, pathology of gastric ulcer; Dolph L. Curb, Houston, modern trends in the medical treatment of ulcer; Asher R. McComb, San Antonio, evaluation of present surgical procedures for ulcer; and C. A. Stevenson, Temple, benign and malignant gastric ulcer.

Van Zandt County Society

Robert M. Golladay of Wills Point is the new president of the Van Zandt County Medical Society. W. J. Garrett, Van, is the vice-president. Other officers are B. B. Brandon, Edgewood, secretary-treasurer; H. A. Baker, Wills Point, delegate; and Raymond W. Cozby, Grand Saline, alternate.

Harry T. Fry, Wills Point, is chairman of the public relations committee; George B. Marsh, Jr., Grand Saline, medical jurisprudence committee; and Dr. Garrett, committee on tuberculosis.

Wharton-Jackson-Matagorda-Fort Bend Counties Society

February 10, 1953

Urology Problems in Children—Thomas Guthrie, Houston.

The Wharton-Jackson-Matagorda-Fort Bend Counties Medical Society met in Rosenberg February 10 to hear the above discussion by Dr. Guthrie and see slides presented by his associate, H. F. Leifeste. Twenty-nine members, guests, and auxiliary members were present at the dinner meeting.

March 10, 1953

(Reported by Lorraine I. Stengl, Secretary)

Infants Delivered by Cesarean Section—Allan Bloxsom, Houston.

Forty-two members, guests, and auxiliary members attended the meeting of the Wharton-Jackson-Matagorda-Fort

Bend Counties Medical Society March 10 in Palacios and heard Dr. Bloxsom reevaluate after ten years some of the problems found in infants delivered by cesarean section.

The society contributed $25 to the Texas Memorial Medical Library Association in memory of J. M. Andrews, Wharton.

Wichita County Society

January 13, 1953

At a dinner-meeting of the Wichita County Medical Society January 13, Charles Pomerat, Ph. D., professor of cytology at The University of Texas Medical Branch at Galveston, demonstrated by slides and diagrams how cells are taken from the human body and kept alive for laboratory experiments in the study of cancer tissues.

DISTRICT SOCIETIES

First District Society

February 13-14, 1953

(Reported by H. D. Garrett, Secretary)

Biliary Tract Surgery—Robert M. Moore, Galveston.
Care of Malignant Lesions of the Colon and Rectum—Dr. Moore.
United Nations Educational, Scientific, and Cultural Organization—T. C. Terrell, Fort Worth.

The annual meeting of the First District Medical Society was held in El Paso February 13-14 with approximately fifty members present.

Dr. Terrell, President of the Texas Medical Association, and Dr. Moore, professor of surgery, University of Texas Medical Branch, Galveston, were guest speakers. Dr. Terrell addressed a joint meeting of the doctors and their wives.

John W. O'Donnell, Alpine, was elected president; W. R. Curtis, El Paso, vice-president; and H. D. Garrett, El Paso, secretary-treasurer.

The following El Paso doctors took part in the scientific program: Willard W. Schuessler, Jack A. Bernard, H. D. Hatfield, C. C. Boehler, James D. Bozzell, W. G. Morrow, Jr., James J. Gorman, Ralph H. Homan, Basil K. Byrne, Charles P. C. Logsdon, and Gray E. Carpenter.

The society's next meeting will be held in Pecos, probably in February, 1954.

Seventh District Society

February 20, 1953

(Reported by B. Clary Bates, Secretary)

Role of Infections in Respiratory Allergic Diseases—Homer E. Prince, Houston.
Surgical Treatment of Breast Lesions, Benign and Malignant—John V. Goode, Dallas.

The Seventh District Medical Society met in its annual scientific session February 20 in Austin and heard the above talks by Drs. Prince and Goode.

Darrell B. Faubion, Austin, is president. Other officers are Robert Hermann, Taylor, vice-president, and B. Clary Bates, Austin, secretary-treasurer.

Twelfth District Society

January 13, 1953

(Reported by Walter B. King, Jr., Secretary)

Budd-Chiari Syndrome—Arnold Haisten, Temple.
Treatment of Emphysematous Chest Diseases—W. O. Arnold, Temple.
Preceptorship Program of University of Texas Medical Branch—Van D. Goodall, Clifton.
Coronary Artery Diseases: Advances in Diagnosis and Treatment—George R. Herrmann and Milton R. Hejtmancik, Galveston.

The Twelfth District Medical Society met in Temple January 13. Howard Dudgeon, Jr., Waco, became president; Neil Buie, Marlin, president-elect; Walter B. King, Jr., Waco, secretary-treasurer.

The above program was presented and a movie, "Surgical Treatment of Cancer of the Tongue," accompanied Dr. Haisten's case report. R. W. Kimbro, Cleburne, Texas Medical Association Trustee, was speaker at the luncheon, which was also attended by the members of the district Woman's Auxiliary.

The next meeting of the society is scheduled for July 14 in Cameron.

AUXILIARY SECTION

COUNTY AUXILIARIES

Bexar County Auxiliary

The Woman's Auxiliary to the Bexar County Medical Society met January 9 in San Antonio to elect a nominating committee. During the annual International Medical Assembly January 27-29, the auxiliary was hostess to the doctors' wives at an evening party given by the Assembly.

During the regular business meeting February 13, Mrs. John C. Parsons became president; Mmes. J. Lewis Pipkin, president-elect; Charles W. Tennison, first vice-president; F. G. Lahourcade, second vice-president; Dudley Jackson, Jr., third vice-president; M. H. Morris, fourth vice-president; Jack B. Lee, recording secretary; M. A. Childers, corresponding secretary; James L. Mims, Jr., publicity secretary; Fred B. Cooper, treasurer; Russell T. Snip, auditor; E. F. Lyon, Jr., historian; and Willis Allin, parliamentarian.

A style show was presented after the business meeting, with Mrs. Lahourcade as program chairman and Mrs. Graham B. Ladd as vice-chairman. Hostesses for the meeting were Mrs. Jack Wright, chairman, and Mesdames P. I. Nixon, Jr., J. L. Pridgen, and I. C. Skinner, Jr.—Mrs. L. Bonham Jones, Publicity Secretary.

Officers of the Woman's Auxiliary to the Texas Medical Association: President, Mrs. Robert F. Thompson, El Paso; President-Elect, Mrs. E. W. Coyle, San Antonio; First Vice-President (Organization), Mrs. R. T. Travis, Jacksonville; Second Vice-President (Physical Examinations), Mrs. Troy A. Shafer, Harlingen; Third Vice-President (Today's Health), Mrs. P. R. Jeter, Childress; Fourth Vice-President (Program), Mrs. John D. Gleckler, Denison; Recording Secretary, Mrs. Carlos R. Hamilton, Houston; Treasurer, Mrs. Oscar Marchman, Jr., Dallas; Corresponding Secretary, Mrs. Newton F. Walker, El Paso; Publicity Secretary, Mrs. A. H. Neighbors, Sr., Austin; Parliamentarian, Mrs. Joe D. Nichols, Atlanta.

Bowie County Auxiliary

Mr. Loyd Bennett of the American Red Cross spoke on volunteer service to the Bowie County Auxiliary at a luncheon meeting February 27 in Texarkana.

The president, Mrs. Cyrus P. Klein, appointed Mrs. Charles V. Bintliff chairman of the nominating committee. —Mrs. Fred T. Hargrove.

Cameron-Willacy Counties Auxiliary

Future Nurses of America, sponsored by Cameron-Willacy Auxiliary, began in February assisting in the convalescent polio ward of Valley Baptist Hospital. Sponsor of

the high school girls is Mrs. Martin Atchison. A similar organization for junior high school girls is sponsored by Mrs. George Willeford and Mrs. E. J. Ashcraft, Jr.

Cass-Marion Counties Auxiliary

After a dinner-meeting with the Cass-Marion Counties Medical Society, the Woman's Auxiliary met at the home of Mrs. Jesse M. DeWare, Jefferson, for a business session. New officers were elected as follows: Mrs. O. R. Taylor, Linden, president; Mrs. J. I. Allen, Bloomburg, vice-president; Mrs. C. E. Davis, Linden, secretary-treasurer; and Mrs. W. S. Terry, Jefferson, reporter.—Mrs. W. S. Terry, Reporter.

Dallas County Auxiliary

The Woman's Auxiliary to the Dallas County Medical Society honored the members' husbands with a Valentine dinner-dance February 14 in Dallas. Chairmen of the entertainment committee were Mrs. Oscar Marchman, Jr. and Mrs. Maxwell Thomas. Assisting were Mmes. Robert J. Rowe, W. P. Devereux, Robert N. Hesser, Joe B. Wood, Carey G. King, Jr., and Paul J. Thomas.

Approximately 300 persons attended.

Denton County Auxiliary

Mrs. Harry Farber was installed as president of the Denton County Auxiliary March 20 at a guest day luncheon in Denton. Other new officers include Mrs. George Hinkle, vice-president; Mrs. William A. Remley, treasurer; Mrs. Tom Patterson, secretary; and Mrs. Bert Davis, parliamentarian.

Ector-Midland-Martin-Howard-Andrews-Glasscock-Scurry-Dickens-Kent-Garza-Borden-King-Stonewall Counties Auxiliary

The Woman's Auxiliary to the Ector-Midland-Martin-Howard-Andrews-Glasscock-Scurry-Dickens-Kent-Garza-Borden-King-Stonewall Counties Medical Society had a coffee February 12 in Midland, with Mrs. Thomas Marinis and Mrs. W. S. Parks serving as hostesses. Eighteen members attended.

Galveston County Auxiliary

Proceeds from a card party sponsored by the Woman's Auxiliary to the Galveston County Medical Society February 10 are being used for a scholarship for a Galveston County girl to attend either St. Mary's Training School for Nurses or The University of Texas School of Nursing. Plans for the scholarship to be offered this fall are being made by a committee of auxiliary members and representatives of the nursing schools.

Auxiliary members on the committee are Mesdames Samuel R. Snodgrass and John L. Otto of Galveston; Andrew Magliolo, Dickinson; R. S. Casey, Texas City; and William T. Anderson, La Marque.

Grayson County Auxiliary

The book "High Bright Buggy Wheels" by Creighton was reviewed by Mrs. E. J. Roberts at the Grayson County Auxiliary meeting in Denison January 9.

A luncheon February 6 honored Mrs. Robert F. Thompson, El Paso, State President of the Woman's Auxiliary. Other special guests were Mrs. Joseph H. McCracken, Jr., Dallas, Fourteenth District President; Mrs. James W. Atchison, Gainesville, Fourteenth District President-Elect; and Mrs. Oscar W. Robinson, Paris, past State President.

During the business session, Mrs. S. L. Clayton, Denison, was elected president; Mrs. Donald Brandt, first vice-president; Mrs. Harry Shytles, Sherman, second vice-president; Mrs. Corliss Kepler, secretary; Mrs. Arthur Boyd, Sherman, treasurer; Mrs. Arthur Stoolfire, Sherman, parliamentarian; and Mrs. Creighton Reid, Sherman, historian.

Mrs. Max Woodward of Sherman gave the invocation. Mrs. Emmett Essin, Sherman, Grayson Auxiliary president, introduced the guests.

Hale-Floyd-Briscoe-Swisher Counties Auxiliary

Socialized medicine was discussed by Mrs. Howard Bess of Floydada January 13 in Plainview at the meeting of the Woman's Auxiliary to the Hale-Floyd-Briscoe-Swisher Counties Medical Society. Also, plans were presented for Plainview's first Doctors' Carnation Day honoring the practicing physicians of the community March 30.

Hunt-Rockwall-Rains Counties Auxiliary

The Woman's Auxiliary to the Hunt-Rockwall-Rains Counties Medical Society met March 3 in the home of Mrs. Frank Parker, Greenville, to hear Mrs. Ray Price speak on "Gonzales Warm Springs" and Mr. E. L. Foster talk on "Our Heart Clinic."

The following standing committee appointments were read: Mesdames S. D. Whitten, yearbook; H. E. Mehmert, entertainment; E. T. Crim, membership; H. W. Maier, courtesy; C. B. Weis, health; C. T. Kennedy, Sr., research; R. G. Bruce, public relations; W. P. Philips, *Today's Health;* and T. C. Strickland, legislation.

Co-hostesses were Mrs. Mehmert and Mrs. Fred Peak. Mrs. Crim presided at the silver service.

The April 7 meeting was held at the home of Mrs. J. C. Vallancey, Greenville.—Mrs. S. D. Whitten.

Jefferson County Auxiliary

A coffee and musical program was held February 17 in the home of Dr. and Mrs. Bedford Pace, Beaumont, for the members of the Woman's Auxiliary to the Jefferson County Medical Society and their families. On the program were Mmes. C. H. Hendry, H. E. Alexander, Arthur F. Reimers, Pace, Kurt Lamprecht, W. T. Evans, H. B. Williford, F. P. Allison, A. S. Hinshaw, E. H. Lindsey, and Harry Starr and Miss Janelle Harris.

Hostesses included Mmes. Alexander, Winston Cochran, Pace, D. W. Quick, M. E. Suehs, Charles Todd, and Williford.

Navarro County Auxiliary

Fifty heart banks were placed throughout Navarro County for the collection of funds for the National Heart Association by the Woman's Auxiliary to the Navarro County Medical Society. The announcement was made by Mrs. C. L. Gary, Jr., president, at the group's regular meeting February 9 in Corsicana.

"Heart Disease Research," an article from *Today's Health,* was reviewed by Mrs. Bernard Rosen, and Mrs. Paul H. Mitchell conducted a quiz from the magazine.

The organization voted to contribute $5 to each of the State Auxiliary projects—student loan, memorial, and library funds.

Fifteen members attended.

At the March 6 meeting at the home of Mrs. Will Miller in Corsicana the members of the Navarro County Auxiliary elected officers and participated in a program on civil defense.

The new officers follow: Mrs. Mitchell, president; Mrs. W. R. Sneed, first vice-president; and Mrs. Gary, secretary-treasurer. Committee chairmen are Mmes. Dan Hamill, legislative; Ben Griffin, public relations; Lewis Gibson, *Bulletin*; and S. H. Burnett, *Today's Health.*

A film on "Atomic Survival" was shown.

Reports of officers and committee chairmen were given at the April 3 meeting at the home of Mrs. Mitchell.—Mrs. S. H. Burnett.

Orange County Auxiliary

Co-hostesses for the monthly meeting of the Woman's Auxiliary to the Orange County Medical Society February 9 were Mrs. Oliver Seastrunk and Mrs. Robert Minkus.

Plans were discussed for a proposed spastic treatment center.

Tarrant County Auxiliary

The Tarrant County Auxiliary heard Mrs. Robert F. Thompson, El Paso, State President of the Woman's Auxiliary, at a luncheon February 13 in Fort Worth. Mrs. Judge M. Lyle gave the invocation. Mrs. T. C. Terrell was director of the program.

Tom Green-Eight County Auxiliary

A luncheon honoring Mrs. Robert F. Thompson, El Paso, State President of the Woman's Auxiliary, was given by the Tom Green-Eight County Auxiliary February 10 at the home of Mrs. Cecil French, San Angelo. Hostesses at the luncheon and business meeting were Mmes. Kermit Brask, Clay Johnson, Gordon Pilmer, and W. B. Butner.

Travis County Auxiliary

Mrs. Charles Dildy became president of the Woman's Auxiliary to the Travis County Medical Society February 17 at a meeting in the home of Mrs. J. R. Nichols, Austin. Mrs. G. G. Zedler is the new first vice-president; Mrs. David Wade, second vice-president; Mrs. L. L. Griffin, secretary; Mrs. James Herrod, treasurer; and Mrs. Lee Scarbrough, publicity chairman.

"The Doctor Has Three Faces," a book by Mary Bard, was reviewed by Mrs. J. M. Coleman.

Chairmen of the hostess committee for the meeting were Mrs. Henry Hilgartner and Mrs. W. W. Kelton.

DISTRICT AUXILIARIES

First District Auxiliary

The First District Auxiliary held its annual meeting February 13-14 in El Paso. New officers were elected as follows: Mrs. Harold Lindley, Pecos, president; Mrs. Andrew Eck, El Paso, vice-president; Mrs. David Sauer, Kermit, secretary.

A play, "Scatte Red Showers," was presented by Mmes. Newton Walker, Branch Craige, Willard Schuessler, and Delphin von Briesen after the business session. Mrs. Gerald Jordon, El Paso, was chairman of arrangements, A barbecue luncheon was served to auxiliary members and doctors.—Mrs. Haskell Hatfield.

Twelfth District Auxiliary

At the regular meeting of the Twelfth District Auxiliary January 11 in Temple, officers were elected and a check from the heart fund campaign was given in memory of Dr. Howard Wells, Waco surgeon who passed away January 11. Mrs. V. J. Simmon, Temple, heart fund chairman, presented the $2,800 check to Dr. George R. Herrmann, director of cardiovascular research at The University of Texas Medical Branch in Galveston.

Mrs. Milton Spark, Waco, was elected president; Mrs. C. L. Gary, Jr., Corsicana, first vice-president; Mrs. G. V. Brindley, Jr., Temple, secretary; and Mrs. E. L. Clark, Cleburne, press reporter.—Mrs. F. F. Kirby, press reporter.

DEATHS

J. M. ANDREWS

Dr. Judson Montgomery Andrews, Wharton, Texas, died February 2, 1953, in a Wharton hospital as a result of cerebral hemorrhage.

The son of Absolom Mitchell and Anne (Ragsdale) Andrews, Dr. Andrews was born in Marshall County, Ala., September 11, 1864. He attended public schools in Alabama and Mississippi and worked for a time as a purchasing agent for a lumber company. Following this, he studied medicine at what was then the Memphis Hospital Medical College in Memphis, Tenn. After receiving his medical degree in 1894, Dr. Andrews took postgraduate courses at the New York Polyclinic Medical School and Hospital in New York City. He first practiced medicine at Alto, being associated for two years with his father-in-law, Dr. J. W. Teague. In 1896 Dr. Andrews moved to Wharton, where he continued his practice until his death. During the more than fifty years that he practiced medicine in that community, he was Wharton's first county health officer, a position which he held for thirty-eight consecutive years. Always actively interested in public health, Dr. Andrews was appointed by the State Health Officer, Dr. W. M. Brumby, to act as a Texas medical inspector to Central America during the yellow fever epidemic of 1900. In that capacity, Dr. Andrews spent some time in Panama. In World War I and II, he was examining physician for the local Selective Service Board.

For over fifty years, Dr. Andrews was a member of the American Medical Association and the Texas Medical Association through Wharton-Jackson-Matagorda-Fort Bend Counties Medical Society and held life memberships in all. He helped organize his county medical society and had been president of the group in 1932, 1935, and 1938. He was elected to honorary membership in the State Association in 1947. In addition, Dr. Andrews was vice-president in 1908 of the Texas Health Officers Association. A member of the Masonic Lodge for nearly sixty years, he also was a member of the Modern Woodmen of the World.

Dr. Andrews married the former Miss Ellen Teague on January 14, 1891, at Mount Vernon. She died December 25, 1948. Survivors include one son, J. D. Andrews, Lockhart; a daughter, Mrs. Albert Wadsworth, Sr., Bay City; and three sisters, Mesdames J. M. Edwards, Wichita Falls; Ira G. Bond, Mobile, Ala.; and W. H. Broughton, Bay City.

An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.

B. U. McCOWN

Dr. Blanche Uranie McCown (Mrs. Paul Jones), Burnet, Texas, died December 21, 1952, at her home near Burnet.

Dr. McCown was the daughter of Marion Ryan and Grace McCown and was born April 11, 1919, in Charleston, S. C. She was a graduate of the College of Charleston and the Medical College of the State of South Carolina, Charleston, from which she was graduated with a medical degree in 1943. Upon completing her formal schooling, Dr. McCown

was an intern at Roper Hospital and an assistant in pathology at the Medical College, both in Charleston, before coming to Texas in 1946 to serve her residency at Nix Hospital, San Antonio. In 1947 she took up residency work in internal medicine at Methodist Hospital, Houston, and in 1948 continued as a resident in internal medicine at Jefferson Davis Hospital, Houston. Also, she was a fellow in internal medicine at Baylor University College of Medicine, Houston, in 1948 and 1949. In 1950 she began practicing medicine at Burnet, where she was on the staff of Shepperd Memorial Hospital and Clinic. She practiced there until her death, specializing in internal medicine.

Dr. McCown was a member of the American Medical Association and the Texas Medical Association through the Lampasas-Burnet-Llano Counties Medical Society, of which she was secretary in 1951. She had also been a member previously of the South Carolina Medical Association.

Dr. McCown married Col. Paul Jones, retired army officer, on December 11, 1952. He survives her, along with her father, Marion Ryan McCown, Tyron, S. C.; her mother, Mrs. Grace McCown, and a sister, Mrs. Claudia Almeida, both of Charleston.

M. S. WHEELER

Dr. Morris Sheppard Wheeler, Austin, Texas, died of cancer of the lungs in a McKinney hospital on February 4, 1953.

Dr. Wheeler was born October 1, 1903, at Malta, the son of Judge C. A. and Sallie D. (Looney) Wheeler. He was graduated from Texarkana High School and in 1928 received a bachelor of arts degree from the University of Texas, Austin. In 1930 he was graduated from the University of Texas Medical Branch, Galveston. Dr. Wheeler served internships at the Robert B. Green Hospital, San Antonio, and the San Antonio State Hospital. Following this, he practiced for one year at Hamilton Dam prior to taking postgraduate courses in psychiatry at Johns Hopkins University School of Medicine in Baltimore and Columbia University, New York City. He resumed the practice of medicine upon completion of his studies at these schools. For three years he was at the Fort Sill Military Reservation in Oklahoma, after which he practiced for four years at Rusk, where he was superintendent of the State Hospital. During World War II, Dr. Wheeler served in the Army Medical Corps. He held the rank of colonel and was executive officer of the 127th General Hospital Unit; he was stationed overseas from 1943 until 1945, when he became chief of psychiatry at the United States Army Medical Center in Washington, D. C. Following his discharge that same year, he became a psychiatrist with the Veterans Administration in Austin. He continued in that capacity until illness in September, 1952, forced him to become hospitalized.

Dr. Wheeler was a member of the American Medical Association and the Texas Medical Association through Cherokee and Travis Counties Medical Societies. In 1941 he was president of Cherokee County Society. In addition, he was a fellow of the American Psychiatric Association and was certified by the American Board of Psychiatry and Neurology. While in Rusk, he had served as president of the Kiwanis Club. In Austin he was a member of the Central Christian Church.

On February 8, 1936, at Fort Sill, Dr. Wheeler married the former Miss Roberta Ferguson, who survives him. Other survivors include his son, John C. Wheeler, and a daughter, Carol M. Wheeler; his parents, Judge and Mrs. C. A. Wheeler, all of Austin; and three brothers, J. W. Wheeler, Austin; Charles A. Wheeler, Jr., Temple; and Captain J. P. Wheeler, United States Air Force, Kelly Field.

A. R. AUTREY

Dr. Alfred Ransom Autrey, Port Arthur, Texas, died as a result of arteriosclerosis at a nursing home in that city February 14, 1953.

Dr. Autrey was the son of Alfred Randley and Elizabeth (Johnson) Autrey and was born November 6, 1881, in Fayetteville, N. C. He received his bachelor of arts degree at the age of 19 from Wake Forest College, Wake Forest, N. C., after which he attended Johns Hopkins University School of Medicine in Baltimore. Dr. Autrey then enrolled in Rush Medical College, Chicago, and was graduated with a medical degree in 1905. He interned at St. Mary's Hospital in Milwaukee, Wis. Before beginning medical practice in Texas, Dr. Autrey was a physician for a coal and coke company in La Paz, Bolivia, and also practiced in Mexico City. In 1907 he moved to Cold Springs, where he practiced for three years. From there he went to Elmina to practice until 1916. Throughout the remainder of his medical career, except for a period of several months in 1918 when he served as a lieutenant in the Army Medical Corps, Dr. Autrey practiced in Port Arthur. During World War II he was chairman of the Jefferson County Procurement and Assignment Board. For his work he received a presidential citation. In addition, he was instrumental in organizing St. Mary's Hospital in Port Arthur and had served on various committees of the hospital staff.

Dr. Autrey was a member of the American Medical Association and an honorary member of the Texas Medical Association through Jefferson County Medical Society, of which he at one time had been president. Active for many years in various civic, fraternal, and social organizations, Dr. Autrey was a Mason and a Shriner, and a member of the Rotary Club and the Port Arthur Country Club. He also had served on the advisory board of the Salvation Army and on the Port Arthur School Board. He was a director of both the First National Bank and the Security Loan and Investment Company and a member of the Presbyterian Church, all in Port Arthur.

On September 15, 1890, at Cold Springs, he married the former Miss Ida Mae Ernst, who survives him. Other survivors are two daughters, Mrs. W. M. Breath, Corpus Christi, and Mrs. V. Zay Smith, Danver; one brother, Dr. S. L. Autrey, Trinity; and five grandchildren.

F. P. KENNEDY

Dr. Francis Preston Kennedy, Carlton, Texas, died December 18, 1952, near his home as a result of injuries sustained when struck by an automobile.

Dr. Kennedy was born November 20, 1871, at Bremond, the son of C. P. and Mary Kennedy. He attended Granbury College, Granbury; the University of Arkansas, Little Rock; the University of Texas School of Medicine, Galveston; and Tulane University of Louisiana School of Medicine, New Orleans. Dr. Kennedy practiced medicine at Carlton for more than fifty years, having carried on a limited practice during recent years.

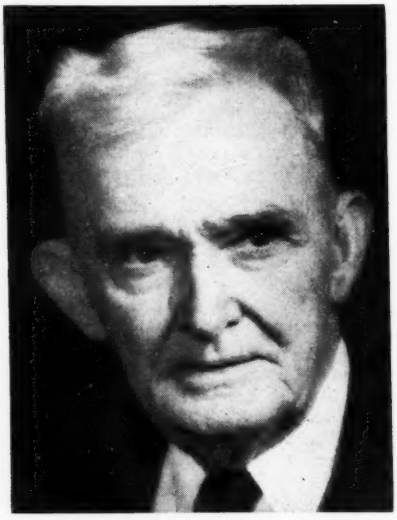
A member of the American Medical Association, he was an honorary member of the Texas Medical Association through Hamilton County Medical Society. Dr. Kennedy served as president of his county society in 1945. He was a Mason and a life-long member of the Methodist Church.

In December, 1903, Dr. Kennedy married the former Miss Ollie E. Sowell, who died July 11, 1948. He is survived by a son, H. C. Kennedy, Longview; one daughter, Mrs. W. O. Crider, Austin; a brother, James E. Kennedy, Los Angeles; and two sisters, Mrs. Will Powers, Breckenridge; and Mrs. May Alsbrook, San Antonio.

H. J. CHILDRESS

Dr. Harmon Jay Childress, Gilmer, Texas, died January 8, 1953, following an illness of several months' duration in the hospital owned by him in Gilmer.

Dr. Childress was the son of S. M. J. and Lucy (Robertson) Childress, pioneer settlers in Upshur County, where he was born October 23, 1879. He attended schools in Gilmer, a medical school in Tennessee, and the old Southwestern Medical School in Dallas, forerunner of Baylor University College of Medicine. In 1907 he started practicing under a special license in Dallas County while continuing his schooling. A year later he moved back to Upshur County and practiced for a short time in that area. Dr. Childress then entered Tulane University of Louisiana School of Medicine, New Orleans, where he received his medical degree in 1909. Upon returning to Gilmer, Dr. Childress established a medical practice which he continued until his recent illness. In 1912 he built Gilmer's first hospital. This was the old Oak Lawn Sanitarium. The present-day Oak Lawn Sanitarium was built in 1939. He had been county



DR. HARMON J. CHILDRESS

health officer, county medical examiner for the local draft board during World War I, and a member of the State Board of Health.

Dr. Childress was a member of the American Medical Association and the Texas Medical Association through Upshur County Medical Society, of which he was a charter member and many times a president. Dr. Childress also was active in many civic undertakings, having served as president and on the board of directors for the Farmers and Merchants National Bank of Gilmer, and on the Gilmer School Board. He was a Shriner, a thirty-second degree Mason with more than fifty years in the local lodge, steward in the Methodist Church, and the owner of extensive agricultural interests. In addition, he was a prominent political figure in Upshur County, having been county Republican chairman for more than thirty years.

Surviving Dr. Childress are three daughters, Mesdames Kathleen Quinn, Christine Ramey, and R. E. Gates, all of Gilmer; four grandchildren; and one great-grandchild.

E. M. FRY

Dr. Elma May Fry, Dallas, Texas, died at her home December 17, 1952.

Dr. Fry was born at Mountain Grove, Mo., on September 16, 1887. She attended Springfield State Teachers College, Springfield, Mo.; Valparaiso University, Valparaiso, Ind.; and the University of Chicago, Chicago. After receiving bachelor of arts and bachelor of science degrees from the latter, she enrolled in Rush Medical College in Chicago and in 1926 was graduated with a doctor of medicine degree. Dr. Fry served her internship and a residency in surgery at Baylor Hospital, Dallas. During 1928 and 1929 she was associated with the Chicago Lying-In Hospital and spent several months in Vienna, Austria. Since July, 1929, she had practiced in Dallas, specializing in obstetrics and gynecology. In addition, she had been a clinical assistant professor of gynecology at Southwestern Medical School of the University of Texas in Dallas.

Dr. Fry was a member of the American Medical Association and the Texas Medical Association through Dallas County Medical Society and was a fellow in the American College of Surgeons. She also held memberships in the Knife and Fork Club, the Business and Professional Women's Club, and the Altrusa Club.

Dr. Fry is survived by a sister, Mrs. William True of Springfield, Mo., and three nieces.

S. T. PULLIAM

Dr. Seeley Thompson Pulliam, Houston, Texas, died at his home January 7, 1953, of myocardial infarction.

Dr. Pulliam was the son of Dr. Llewellyn C. and Mary (Hyde) Pulliam. He was born November 17, 1874, in Pittsfield, Ill. He attended high school and Acadia College

DR. SEELEY T. PULLIAM

in Crowley, La., before studying medicine at Eclectic Medical College, Cincinnati. Dr. Pulliam also received special training at the Eye, Ear, Nose and Throat Hospital in New Orleans. After being graduated from medical school in 1897, he chose to establish his medical practice at Crowley. He also practiced at Tularosa, N. Mex., for several years prior to moving to Houston in 1910. Dr. Pulliam remained in Houston until his death, limiting his practice to eye, ear,

nose, and throat. He was formerly a member of the Texas State Board of Medical Examiners.

Dr. Pulliam was a member of the American Medical Association and an honorary member of the Texas Medical Association through Harris County Medical Society, of which he was a past president. He was affiliated with the Houston Academy of Medicine, having been president of the Ophthalmological and Otolaryngological Section. He was a diplomate of the American Board of Otolaryngology as well. A Baptist, Dr. Pulliam was a member of the Knights of Pythias.

Dr. Pulliam married the former Mrs. Irene Griffin Odom in Amite, La., in 1909. She died November 12, 1952. Survivors include a son, Dr. Lawrence T. Pulliam, and a stepson, Dr. Ivey B. Odom, both of Houston.

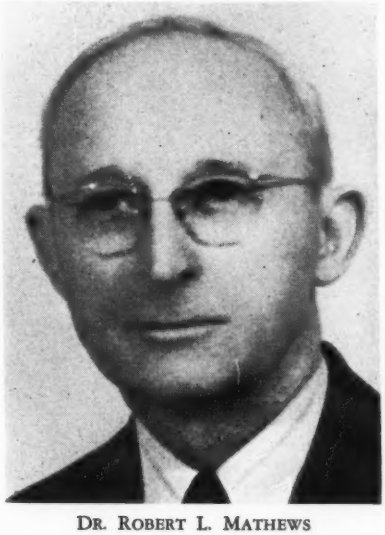
R. L. MATHEWS

Dr. Robert E. Lee Mathews, Lufkin, Texas, died in that city December 27, 1952, following a long illness.

A native of Angelina County, Dr. Mathews was born at Homer on December 25, 1870, the son of Henry J. and Matilda Mathews. He received his early education at public schools in Homer and Lufkin prior to entering the University of Texas School of Medicine, Galveston. In 1900 he was graduated from the Memphis Hospital Medical College in Memphis. Dr. Mathews interned at City Hospital, Memphis, and did postgraduate work at Bellevue Hospital Medical College, New York. After practicing medicine for several years, he took additional postgraduate courses in diseases of the eye, ear, nose and throat at Tulane University School of Medicine, New Orleans. In addition to being a doctor of medicine, Dr. Mathews also was a registered pharmacist. During his medical career, he practiced at Diboll, Winchell, Coleman, and Kingsville before returning to Lufkin. While in Kingsville from 1912 to 1916, he was named to be the first county health officer for Kleberg County and was among those active in the establishment of the Kleberg County Hospital. He then practiced at Lufkin until his retirement in 1940; there he was a founder of the Angelina County Hospital.

Dr. Mathews was a member of the American Medical Association and an honorary member of the Texas Medical Association through Angelina County Medical Society. Active in the Church of the Nazarene in Lufkin, he was for many years Sunday school superintendent and a member of the board of trustees.

Dr. Mathews married the former Miss Flora Mantooth in Lufkin on December 25, 1901. After her death in 1931, he married the former Miss Archie Birdsong in 1933 at Lufkin. Survivors include his wife; four sons, R. L. Mathews, Jr., Kingsville; Henry Mathews, Orange; Jared Mathews and Haynes Mathews, both of Lufkin; and one sister, Mrs. P. W. Everitt, San Antonio.



DR. ROBERT L. MATHEWS

W. H. WELLS

Dr. William Howard Wells, Waco, Texas, former vice-president of the Texas Medical Association, died as a result of coronary occlusion in a Waco hospital January 11, 1953.

Born November 1, 1907, at Mineral Wells, Dr. Wells was the son of Charles and Emma (Harvey) Wells. His early education was received in the public schools of Mineral Wells. He took his premedical training at Baylor University, Waco, and was graduated in 1932 from the University of Texas School of Medicine, Galveston. Dr. Wells served his internship at Providence Hospital, Waco, where for a time he also was house physician. For sixteen years he was associated with the Waco Medical and Surgical Clinic, having become a full partner in the clinic in 1938. At the time of his death, Dr. Wells was a member of the Central Texas Clinic, also in Waco. Specializing in surgery, he practiced in Waco throughout his medical career, with the exception of the period from July, 1942, until April, 1945, when he served as an officer in the Army Medical Corps. During that time he saw service in the Pacific Theater.

DR. W. HOWARD WELLS

Dr. Wells was a member of the American Medical Association and the Texas Medical Association through McLennan County Medical Society. He was a vice-president of the State Association for the year 1942-1943. Dr. Wells had held offices in his county society on several occasions, being secretary in 1939 and president in 1947. In addition, he was a fellow of the American College of Surgeons, a member of the Texas Surgical Society and Phi Chi medical fraternity, and a diplomate of the American Board of Surgery.

The Waco Journal Club of which he was a member has voted to dedicate its Central Texas Spring Clinic in April to Dr. Wells. He was a Mason, a Shriner, and a steward in the Methodist Church.

Dr. Wells married the former Miss Mary Emma Barr in Waco, March 13, 1937. She survives him, along with two sons, Howard Wells and Walter Wells; a daughter, Karolyn Wells, all of Waco; two brothers, Floyd Wells, Waco; and Algon Wells, Houston; and two sisters, Mrs. Ethel Abbey, Waco; and Mrs. R. R. Brader, Fort Worth.

P. C. CHRISTIAN

Dr. Paul Christopher Christian, Pampa, Texas, died December 21, 1952, in a Denver hospital from multiple injuries and complications caused when his clinic in Pampa was destroyed by a gas explosion December 16, 1951.

Dr. Christian was born at Poolville in Wise County on March 11, 1885. He attended high school at Springtown and studied at Fort Worth University, Fort Worth, before enrolling in the University of Oklahoma School of Medicine, Oklahoma City. After being graduated in 1914, Dr. Christian interned at St. Anthony Hospital in Oklahoma City. Dr. Christian practiced three years in that city and one

DR. PAUL C. CHRISTIAN

year at Marlow. From 1918 until 1921 he served as a first lieutenant in the United States Army Medical Corps. He was with the United States Public Health Service from 1921 until 1922 and then was associated from 1922 until 1942 with the United States Veterans Administration hospitals, holding the post of chief surgeon for most of that time. While serving with the Veterans Administration he was located at Legion; Whipple, Ariz.; Fort Bayard, N. Mex.; Oklahoma City; Outwood, Ky.; Hot Springs, S. D.; and Livermore, Calif. In 1942 he established a private practice of medicine in Pampa. He remained in active practice in that city until the time of his injury in 1951.

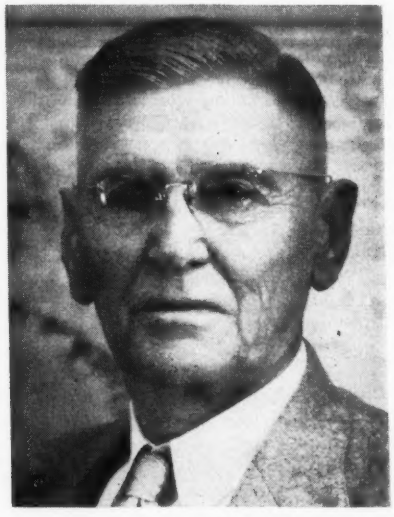
Dr. Christian was a member of the American Medical Association and the Texas Medical Association through several county medical societies, the most recent being Gray-Wheeler-Hansford-Hemphill-Lipscomb-Roberts-Ochiltree-Hutchinson-Carson Counties Society. In 1952 he was elected to honorary membership in the State Association. He also held memberships in the American Academy of General Practice and the Association of Military Surgeons of the United States. He was a thirty-second degree Mason and a Shriner.

Dr. Christian married the former Miss Carolyn Heyser on January 9, 1918, at Oklahoma City. She survives him, as do two brothers, Robert J. Christian, Marlow, Okla., and David E. Christian, Harrison, Ark.

R. L. KNOLLE, SR.

Dr. Robert L. Knolle, Sr., Seguin, Texas, died at his home of a heart attack December 30, 1952.

Dr. Knolle was born on a farm near Industry on December 17, 1869. Following completion of studies at Baylor University, Waco, and the University of Louisville Medical Department in Louisville, from which he was graduated in 1892 at the age of 21, Dr. Knolle practiced medicine in his home town of Industry for nine years. He then was located



DR. R. L. KNOLLE, SR.

at Lockhart for two years before moving to Seguin in 1903. In Seguin he maintained an active general practice for almost fifty years preceding his retirement about three years ago. During his medical career he did postgraduate work at Tulane University School of Medicine in New Orleans; served on the local draft board in World Wars I and II; and was county health officer for seventeen years.

A member for many years of the American Medical Association and the Texas Medical Association through Guadalupe County Medical Society, Dr. Knolle was elected to honorary membership in these organizations in 1950. He had been president of his county society in 1936, 1937, and 1942. At various times he served on the Seguin School Board. Dr. Knolle held memberships in the Seguin Rotary Club, the Masonic Lodge, and the Sons of Hermann, in addition to the Seguin Lions Club, of which he was a past president. Active in the Methodist Church, he had served in many official capacities. When a new Methodist Church was built about a year ago in Seguin, the chapel was named in his honor.

Dr. Knolle married the former Miss Stella Young of Brenham. She survives him along with four children, Dr. R. L. Knolle, Jr., Mrs. Willie Mae Vick, and Mrs. Louis Blumberg, all of Seguin; and Mrs. Juanita Starcke of San Antonio.